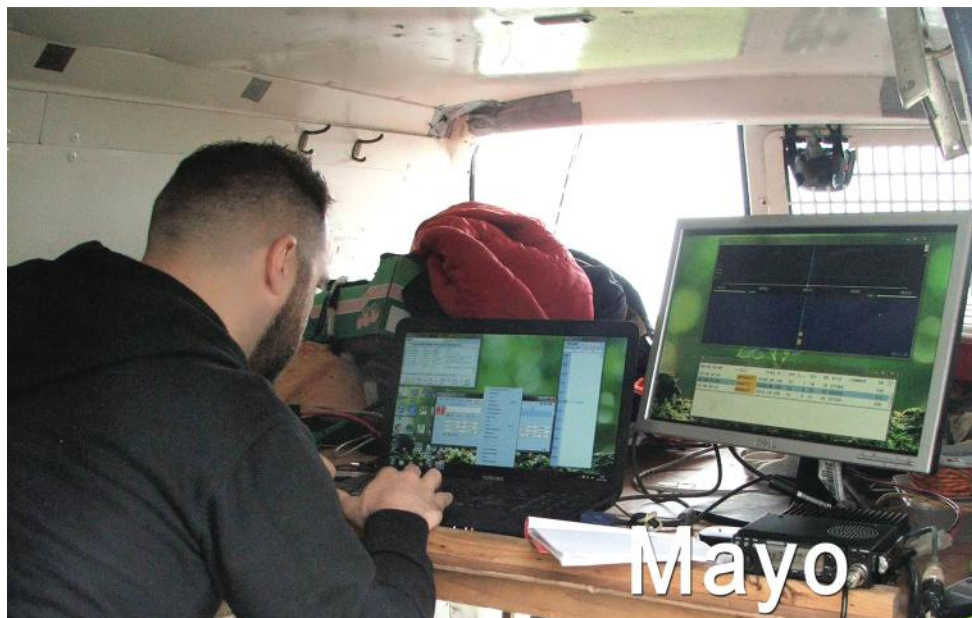


ECHO IRELAND

IRISH RADIO TRANSMITTERS SOCIETY

Autumn 2018 - 86 YEARS



Mayo



Dublin



Wicklow



Wexford



VHF / UHF Field Day 2018

PATRON**Michael D. Higgins
PRESIDENT OF IRELAND****Society Officers 2018/2019**

President	Jim Holohan EI4HH	086 407 1185	<i>holohaj2@hotmail.com</i>
Vice President	Pat O'Connor EI9HX	087 676 7707	<i>pat@donros.ie</i>
Hon. Vice-Presidents	Seán Nolan EI7CD	01 285 1599	<i>ei7cd@gofree.indigo.ie</i>
	Dave Moore EI4BZ	087 629 0574	<i>davebeag@gmail.com</i>
Trustees	Seán Donelan EI4GK	01 282 1420	<i>donelansean@gmail.com</i>
	Peter Ball EI7CC		<i>ei7cc.radio@gmail.com</i>
Auditors	Robert O'Donnell EI5CK		
	Brendan Lynch EI6GA		
Honorary Secretary	Robert Brandon EI5KH		<i>robert.ei5kh@gmail.com</i>
Treasurer and Membership			
Records Officer	Dave O'Connor EI6AL	086 100 0000	<i>dave.ei6al@gmail.com</i>
			<i>memrecords@irts.ie</i>
AREN Coordinator	John Ronan EI7IG	086 816 7310	<i>ei7ig@aren.ie</i>
Automatic Station Coord.	John McCarthy EI8JA	087 943 7500	<i>johne8ja@gmail.com</i>
Awards Manager	Jim Holohan EI4HH	086 407 1185	<i>holohaj2@hotmail.com</i>
Awards Curator	Larry McGriskin EI9CN	091 52 6368	<i>lmcgrisk@iol.ie</i>
Bainisteoir na Ghaeilge	Seosamh Ó hIarnáin EI3HM		<i>sohiarnain@eircom.net</i>
ComReg Liaison	Seán Nolan EI7CD	01 285 1599	<i>ei7cd@gofree.indigo.ie</i>
Contest Manager	Joe Ryan EI7GY	01 285 4250	<i>contestmanager@irts.ie</i>
EMC Manager	Brendan Minish EI6IZ	086 250 1832	<i>ei6iz.Brendan@gmail.com</i>
HF Manager	Dave Court EI3IO	087 236 7580	<i>ei3io@connogue.com</i>
IARU Representative	Dave Court EI3IO	087 236 7580	<i>ei3io@connogue.com</i>
IARUMS	Michael Foertig EI3GYB	094 963 1076	<i>michaelfoertig@eircom.net</i>
Licence Examination			
Board	Seán Nolan EI7CD	01 285 1599	<i>ei7cd@gofree.indigo.ie</i>
	Seán Donelan EI4GK	01 282 1420	<i>donelansean@gmail.com</i>
	Joe Ryan EI7GY	01 285 4250	<i>joe.ei7gy@gmail.com</i>
Morse Testing Coord.	Seán Donelan EI4GK	01 282 1420	<i>donelansean@gmail.com</i>
Chief Morse Tester	Dave Moore EI4BZ	087 629 0574	<i>davebeag@gmail.com</i>
P.O. Box 462	Michael McNamara EI2CL		<i>ei2clmike@eircom.net</i>
PRO	Mark Bannon EI6HPB	086 355 2370	<i>markbannon100@gmail.com</i>
Publications			
Coordinator	Séamus McCague EI8BP	087 259 0691	<i>seamus.ei8bp@gmail.com</i>
Echo Ireland Editor	<i>Vacant</i>		<i>newsteam@irts.ie</i>
EiNews Editor	Steve Wright EI5DD	087 245 1218	<i>newsteam@irts.ie</i>
Radio News Editor	Mark Bannon EI6HPB	086 355 2370	<i>newsteam@irts.ie</i>
Distribution	Seán Donelan EI4GK	01 282 1420	<i>donelansean@gmail.com</i>
QSL Outwards Manager	Dave O'Connor EI6AL	086 100 0000	<i>dave.ei6al@gmail.com</i>
QSL Inwards Manager	Pat Fitzpatrick EI2HX	087 630 0110	<i>patfitzpatrick@hotmail.com</i>
QSL Sub-Managers			
0/1/Calls & SWL	John Browne EI7FAB	087 266 9184	<i>ei7fab@yahoo.ie</i>
2 Series	Thos Caffrey EI2JD	087 295 3256	<i>thoscaffrey@hotmail.com</i>
3 Series	Pat Fitzpatrick EI2HX	087 630 0110	<i>patfitzpatrick@hotmail.com</i>
4 Series	Pat Fitzpatrick EI2HX	087 630 0110	<i>patfitzpatrick@hotmail.com</i>
5 Series	Terry Webb EI4GLB	087 619 9943	<i>terrywebb108@outlook.com</i>
6 Series	Rory Hinchy EI4DJB		<i>rhinchy@iee.org</i>
7 Series	Roland Byrne EI5KP		<i>ei4gyb@gmail.com</i>
8 Series	Brian Canning EI8IU	086 251 4822	<i>brianei8iu@eircom.net</i>
9 Series	Declan Horan EI9FVB	086 333 6386	<i>horandx@gmail.com</i>
Rallies / IRTS Stand	Pat Fitzpatrick EI2HX	087 630 0110	<i>ei2hxpat@gmail.com</i>
Social Media Moderator	Anthony Murphy EI2KC		<i>hamradioireland@gmail.com</i>
Technical Panel Coord.	Jim Holohan EI4HH	086 407 1185	<i>holohaj2@hotmail.com</i>
VHF Manager	Steve Wright EI5DD	087 245 1218	<i>wright14@gmail.com</i>
WAI Awards Manager	<i>see Awards Manager</i>		
WAI Book Sales	Dave Moore EI4BZ	087 629 0574	<i>davebeag@gmail.com</i>
Web Editor	Séamus McCague EI8BP	087 259 0691	<i>seamus.ei8bp@gmail.com</i>
Youth Officer	Brian Canning EI8IU	086 251 4822	<i>brianei8iu@eircom.net</i>

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**IRTS Committee Members
2018/19**

President: Jim Holohan EI4HH
Vice-President: Pat O'Connor EI9HX

Committee

Harry O'Loughlin EI2KL
Steve Wright EI5DD
Robert Brandon EI5KH
Dave O'Connor EI6AL
Brendan Minish EI6IZ
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John McCarthy EI8JA
Louis Ryan EI8KI
Tom McDermott EI9CJ
Declan Horan EI9FVB

Meeting with our Patron, Michael D. Higgins, President of Ireland

President Michael D. Higgins became patron of the IRTS in 2015. Since then our Society, through the good offices of our own past President Gerry Gervin EI8CC, has sought to obtain an audience with our Patron. With President Higgins' hectic schedule it is not surprising that it took so long to secure such an audience. We were very honoured to receive an invitation from the President for two guests from the Society to attend the Patrons Presidential Concert Garden Party at Áras an Uachtaráin on Sunday 1st July. I thought it appropriate that Gerry should accompany me to the event in light of his work in securing the invitation and as immediate Past President.



The event began at 6 pm with the President and Sabina Higgins receiving and shaking hands with all the guests. We proceeded to find seating in the Áras garden. While some live background music played we were treated to some refreshments and finger food. Meanwhile, the President and Mrs. Higgins floated among the guests.

At approximately 7 pm we were invited to move to the Pavilion where we were entertained by the RTÉ National Symphony Orchestra with a number of virtuoso musicians, poets and a superb soprano. The concert finished about 8.30 pm and we were again invited to partake of some more refreshments and finger food. Guests were then given an opportunity to take photographs with the President and Mrs. Higgins. We did get a chance to inform the President about our hobby with particular emphasis on the emergency response aspect of it.

It was a very enjoyable evening and it was an honour to represent the IRTS at this event and to inform our Patron about our hobby and raise the profile of our Society.

Thanks to Gerry EI8CC for his background work in securing the invitation.

Jim Holohan EI4HH, President, IRTS

A letter from our President

Society Members, you may have heard or read my address from this year's AGM regarding the ongoing need the Society has for members to volunteer to serve the Society in its various functions. This letter is addressed to each and every Society members urgently seeking your assistance in finding a candidate to fill the position of Echo Ireland Editor. The vacant position is currently being absorbed by Séamus EI8BP who is continuing to edit and produce the magazine in the absence of a dedicated editor. Séamus already carries out a number of important functions including Publications Coordinator, Web Editor and attendance at IARU meetings.

The position of Echo Ireland Editor is a core function of our Society. Echo Ireland is the national and international face of our Society and has been commended for its production quality and content by amateurs at home and abroad. As Society members I am appealing to you to ask your members to consider volunteering for this important position. If you feel that you or some other individual you know might be interested please don't hesitate to encourage them. You can contact me directly (holohaj2@hotmail.com) or any member of the Committee. The IRTS Committee is there to support the Editor in every way possible.

Many thanks again to all those Amateurs who already give time and effort to the work of the IRTS Committee and also for their contribution to amateur radio in Ireland.

Kind regards

Jim Holohan EI4HH, President IRTS

News from around the Clubs

Kerry Amateur Radio Group

Declan Horan EI9FVB

Celebrating the 1866 Newfoundland to Valentia Inaugural Transatlantic Telegraph Message

The inaugural successful transmission from the western terminus of the transatlantic telegraph cable was carried out between Heart's Contents, Newfoundland, to Valentia, Ireland on Friday 27th July 1866. Prior to this, messages would have taken up to two weeks to cross the Atlantic by ship.

On Friday 27th July 2018, Kerry Amateur Radio Group (KARG) celebrated the anniversary of the connection of Europe to America, old connecting to new, by making wireless communication contact with Hearts Content Cable station in Newfoundland, from Valentia Cable station. QSOs were made on 20m SSB and CW on the day, with a collaborating VO1TAC Amateur Radio group at Hearts Content.

The occasion also acknowledges Valentia as a potential World Heritage site due to its importance in telegraph and radio communication and its historical influence in technology.

This year's event was a collaboration between KARG and the Institution of Engineering and Technology (IET). At 2.30pm the original message sent in 1866 was re-sent via wired CW in front of the approx 60 strong audience. This was followed by lectures including, "*A technical journey for very early telegraphy up to the modern era of Radio & Satellite Communication*" and "*The evolution of submarine cable design since the 1850s*".

An brief history of Valentia Transatlantic Cable Station by Kerry Amateur Radio Group is published in this edition of Echo Ireland

For further details and information on KARG, see www.kerryamateurradiogroup.com or our Facebook page.

International Lighthouse & Lightship Weekend 2018

Members of KARG were QRV from Cromwell Point Lighthouse (IE-0001) for ILLW 2018 on all bands, all modes. With poor conditions most activity was confined to 20m to 80m.

Once again, a lot of visitors, both local and international, were treated to a demo of amateur radio on SSB, CW and FT8, and a presentation by KARG members. QSOs were made with many other lighthouses and lightships. Visitor numbers were up again on previous years. Ian EI4DP paid a visit, as well as a relative of the operator who sent the final message from Valentia Cable Station in 1966.

Lough Erne Amateur Radio Club

David Calderwood GI4VHO

Three of the Club's members have passed the Advanced examination and gained full CEPT licences. They are Gordon MI0LBW, Nathan MI0NPR and Roy MI0LLM. Look out for them on the air.

Nathan MI0NPR has been selected as the RSGB's Regional Youth Representative for Northern Ireland and will also be a member of the RSGB Youth Committee subject to confirmation. He has recently been part of the team representing the UK at the YOTA (Youngsters on the Air) meeting in South Africa. You can read about it at <https://www.ham-yota.com/category/yota-2018/>. There is also an article by Nathan in this edition of Echo Ireland.

The Club has been invited to run a special event station at Enniskillen castle during the Armistice Weekend commemorations in November. Further details will appear on the Club's revamped website <https://learc.eu/> where details can be found of our current activities. Visitors are always welcome.

A date for your diary: The LEARC 2019 Rally will be on Sunday 12th May 2019 in the Share Centre, Lisnaskea.

KARG highly recommend Cromwell Point Lighthouse for visitors to the area. It has a great cafe, exhibits and facilities, and is so educational.

Special thanks go to Wendy, the Light Manager, for looking after us so well over the weekend !



KARG at ILLW 2018

L-R: Pat O'Shea EI5FVB, Declan Horan EI9FVB, Billy O'Connor EI7CQB and Ian McMullan EI4DP

Avondhu Radio Club

Gerard Scannell EI5KF

Avondhu Radio Club was active from Charlesfort Lighthouse, Kinsale, Co. Cork for the International Lighthouse and Lightship weekend.

Locator IO51sq and WAI W65. ILLW Ref: IE020

There has been a light at this location since 1665. Charlesfort was built in the Vauban style, in 1681. It was built on the site of Barry Oges Castle. Today, the OPW manage this popular tourist attraction, next to the pretty village of Summercove and the town of Kinsale.

The present day lighthouse was commissioned within the grounds of Charlesfort, in 1929.



This light was unmanned and operated on Acetylene. In 1980, it was converted to propane. In 2014, it was converted to electric.

A number of visitors were welcomed to the station. Don O'Hare dropped in to say hello. His father had the callsign EI2S.

Kenneth Caruso WO1N was on holidays around Cork and spotted our antenna. Ken is pictured below left with Denis O'Flaherty EI4KH.

Michael Fallon EI5HZB, John Cuthbert EI7HMB (below centre) and Gerard Scannell EI5KF were also operating. Other visitors were Tom O'Sullivan, a SWL and Rosaleen Moylan (below right).



Band conditions over the weekend were poor. Most contacts were made in Europe.

One highlight was logging GB5LV. This lightship, formerly known as LV50 has much history and is gratefully preserved by the Northumberland Yacht Club. See: <https://rnyc.org.uk/history/hy-tyne-iii-history-updated/>

IRTS Shop

IRTS Members can avail of a 10% discount on purchases from the RSGB on-line shop - rsgbshop.org. Members should select the "**Non-member's Price**" before placing the order and then enter the IRTS Discount Code during the checkout process. At this point the discount will be applied. IRTS members who are also RSGB members should continue to select the "**RSGB Member's Price**" and not use the IRTS Discount Code.

The current IRTS Discount Code is **IRTS2020XWW**— it will change from time to time.

www.rsgbshop.org

Limerick Radio Club

Simon Kenny EI7ALB

One of the highlights of the Limerick Radio Club's annual activities is the International Lighthouse & Lightship Weekend, and so it was in 2018. Thirteen club members attended at Loop Head over the weekend, from the set up on Friday to take down on Sunday. A core group of five stayed for the duration, while the other members provided operational support at various times over the weekend.

The two club rigs, a Kenwood TS940S and the ICOM 756 PRO along with the ACOM linear amplifier were used. Brendan EI0CZ provided a full-length G5RV, and Joe EI6HBB provided his multi-band dipole. Bands covered were 80, 40, 30 and 20 metres. Even though propagation conditions were very poor about 760 contacts were made ranging from Japan to the USA and Canada, with the vast majority to European countries and into Eastern Europe. At present the logs are being merged after which detailed analysis will be produced.

As in previous years, one station was operated from the former light keeper's premises and the second station was set up in the lighthouse itself where the public could see an amateur radio Station in operation. Details of LRC and the IRTS were given to those who showed interest.

The LRC activity at Loop Head received a boost from RTE Radio 1 when two club members, Alan EI8EM and Simon EI7ALB were interviewed for a slot on the CountryWide programme on Saturday morning.

In attendance over the weekend were Harry EI2KL, Michael EI3KO, Brendan EI0CZ, Dermot EI2GT, Liam EI7DSB, Mike EI2IX, Garrett EI7HLB, Tom EI5CA, Ger EI4GXB, Alan EI8EM, Joe EI6HBB, John EI4EY, Simon EI7ALB.

However, it wasn't all work and no play as the tradition is to go for an evening meal in the local village of Kilbaha, where members regale each other with stories that stay in Loop Head!



Simon EI7ALB, Joe EI6HBB



Joe EI6HBB, Liam EI7DSB



Brendan EI0CZ, Mike EI2IX, Harry EI2KL



Brendan EI0CZ, Liam EI7DSB, Tom EI5CA, Harry EI2KL



Shannon Basin Radio Club

Brian Canning EI8IU

Museums on the Air

SBRC activated the Cavan and Leitrim Railway Museum as part of the Museums on the Air weekend on the 17th June. The museum is located beside the Irish Rail station in Dromod, Co Leitrim.

We were blessed with the weather when setting up a simple inverted vee dipole which worked well on 20m. The station was set up in the main workshop and we were surrounded by old jet engines, locomotives and even part of a glider. Conditions on the day were not brilliant but we still managed a couple of hundred QSOs, some with other museum stations. The museum was well attended by visitors on the day and most of them showed a genuine interest in our station, the use of Morse code, etc. Possibly the only functioning "Dolly" (the wagon propelled by two people pumping the handles, commonly seen on cartoons) can be taken out on about a kilometre of track. The museum is really a hidden gem and well worth a visit. Out thanks to Michael Kennedy and Philip Bedford for making it possible to set up a station. For further information see their website <https://sites.google.com/site/thecavanandleitrimrailway/home>

Friedrichshafen 2018

Brian EI8IU and Junior op Hannah attended the IARU R1 YOTA meeting where the Chairperson Lisa PA2LS discussed ways to attract more youth into the hobby. The YOTA stand was also very popular and the YOTA group visited all the National Society stands to show them that there are still lots of young people interested in the hobby. There was also an area set up by DARC (German National Society) for youngsters to build simple electronic kits as can be seen by the picture of the rabbit that has flashing eyes and nose. There was also a Maker Faire where again there was a large focus on getting youngsters of all ages involved with electronics, programming, and coding.

Lough Rynn Harvest Festival

The Club will have a station at the upcoming Lough Rynn Harvest Festival held on the grounds of Lough Rynn Castle Hotel, Mohill, Co Leitrim. This will take place on Sunday 23rd September. This event attracts hundreds of visitors and will offer a good opportunity to promote our hobby. So, if anyone wants a great day out, come to the festival and pay us a visit. See <http://www.loughrynnvintagefestival.ie> for information.

Newly Licensed Amateur

SBRC wishes to congratulate Paul Raftery who recently became a licensed amateur. Paul was issued the callsign EI9HQB and is now very active on all the bands. We also extend our thanks to Mick Burke EI4AL and Mark Bannon EI6HPB for their help in assisting Paul prepare for the exam.

IRTS AGM 2019

AGM 2019 is hosted by SBRC and will take place on 13/14th April 2019 in the Hodson Bay Hotel, Athlone. Further information in this edition of Echo Ireland



Tony EI3HA, Paul UK SWL, Fergus EI6IB, Sean SWL, Owen EI4GGB, Craig EI3FW, Fr Niall EI4CF, Michael Kennedy (Curator) Brian EI8IU, Philip Bedford (Curator), Heather (EI8IU Junior Op), Anthony EI6GGB.



Owen EI4GGB operating from the Railway Museum



Hannah gets some soldering practice on the DARC stand



Lisa PA2LS, Hannah and Brian EI8IU

South East Amateur Radio Group (SEARG)

Seán Byrne EI2HZB

Licensed amateurs and enthusiastic SWLs participated in the Lighthouses On The Air Weekend from Hook Lighthouse, Co Wexford, IE0003. Photos by John Tubbritt EI3HQB.



Mandy SWL, Keith EI5KJ, Steve EI4KM, Philip SWL, Derek EI5HWB



L to R Alex SWL, David EI6GVB and Philip SWL



SWL Sue tries out the station; (above) Steve EI4KM

Galway VHF Group

Steve Wright EI5DD

The Galway VHF group have participated in several AREN operations, including the Galway Ultra Marathon, the Kinvara Rock and Road Marathon, the Galway Regatta, the Castlebar 4 days walking Festival and the Galway Walking Club Connemara Marathon held on part of the Western Way. These events used tried-and-tested communications systems but also provided an opportunity to test new communications systems and compare digital radio options. These tests were impressive and will make it possible to incorporate their use in future operations.

Following the IRTS AGM held in Galway, it was possible to acquire the 70cm DMR repeater for Galway. This repeater has been under test for some time and will become operational from its new site in September using the callsign EI7RHD — see <https://ei7rhd.blogspot.com>

The Galway 2m multimode digital gateway EI2GCD will be relocated to the same site as the DMR repeater. The digital gateway is capable of operating DMR, Fusion and possibly P25 or D-Star at a later date. This system will also go on air in September— <https://galwaycitygateway.blogspot.com>

A Fusion Wires-X Gateway is scheduled to go on air in September. This will facilitate experimentation on the Fusion network and will complement the Galway Fusion Repeater set up as a joint initiative between the Galway Radio Club and the Galway VHF group. More information at <https://ei2shd.blogspot.com>

Our 70cm Analog repeater located almost in the centre of Co. Galway continues to provide excellent coverage. Recently, it was found that full coverage extended from the Raddison Blu in Limerick to Claremorris, Co. Mayo without dropouts. This repeater, like many others, could benefit from more activity. If anyone is travelling the roads into or out of Galway, please feel free to give it a try. Reports are always welcome. Information about this repeater may be found on the Galway VHF group website

The Galway VHF group website which is regularly updated is at galwayvhfgroup.blogspot.com



SEARG at Hook Head

IECRO Ireland Radio Club

Mark Bannon EI6HPB

Over the past year the IECRO Radio Club has been very active in terms of attempting to improve/expand amateur repeater coverage within the midlands region of the country.

70cm Developments

The first automated system to be granted authorisation from Comreg was a 70cm voice repeater. Subsequent to this, work then began for the provision of Packet AX-25 communications for the same geographical coverage area as the above repeater.

The main area which we have been focusing on has been the region located between Roscommon-Navan and Cavan-Mountmellick. Other areas are predicted to receive strong signals outside of this core region, however theoretical predictions do not always equal real-life coverage, so we will be depending on signal reports being supplied by the community when the time comes for final testing/deployment.

VHF and Beyond...

Further applications were made to Comreg for the establishment of a number of additional systems. One of these was for a 2m multi-network Allstar/Echolink/IRLP gateway.

The gateway is being developed around the barebones of an old Yaesu Model FTR-2410, which in its day was a very solid, robust and reliable unit. A vast array of modifications are being applied to this base unit to adapt it to fit our required purposes.



Being on 2m, it is anticipated that this gateway will provide a number of exciting services to the amateur community. For example, as 2m is authorised for Maritime Mobile usage, this means that ham operators across a wide coverage area will be able to connect to it while they are out fishing or sailing on the various canals, rivers and lakes.

Furthermore, the system will be linked on a regular basis to our 70MHz FM simplexer, thus enabling dual-band VHF operations.

In addition to this and somewhat even more impressively, it will be linked also to the clubs 29MHz HF parrot.

In summary, this overall mini-network will on occasion act as a triple cross-band automated FM service, enabling VHF users on two different bands to talk to each other and also have the ability to operate voice communications on the high

frequency end of the spectrum while away from home using a low powered handheld.

Further details will follow regarding the designated callsigns, frequencies of operation and access methods for each of the above stations, once the installation and testing process periods have been completed in each case.

Classes/Training

Another area which the IECRO Radio Club has been busy with of late was the training of newcomers to our wonderful ham community. We will be starting a new training course very shortly in the midlands and have a number of people already signed up for it.

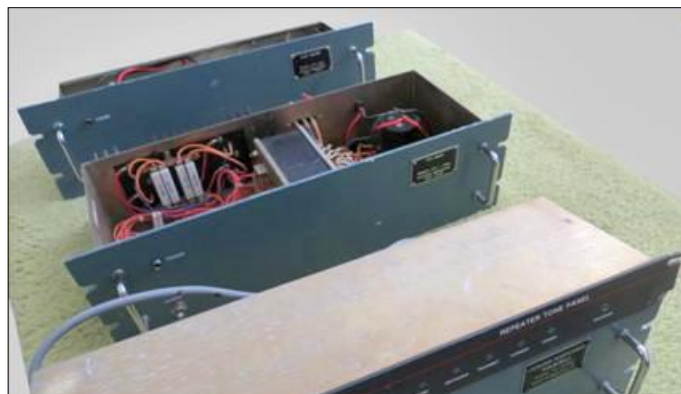
The IECRO club here in Ireland works very closely with the IECRO UK Radio Club in Coventry. A few weeks ago we also assisted the UK club with training some of their students. As a result, 25 new faces to the hobby have been produced over there, two of whom are children and four others are YLs. All in all, a very successful and enjoyable few days for all in attendance. Our club was involved with the provision of five classes at their event. Topics included microwave operations, ATV, SSTV, APRS, DMR, PSK31, RTTY... and much more.

What next?

Over the next few weeks we would like to start arranging for regular monthly meetings. The club has already received a number of invitations from other associated clubs around the world, so we may have to also start organising some trips abroad soon to visit these interesting radio related sites on the back of these invitations.

Contacting the IECRO Radio Club

For any enquiries regarding the club, the secretary may be contacted by email — info.iecro@gmail.com



2m Gateway



SSB Training Desk

Mayo Radio Experimenters Network

Padraic Baynes EI9JA
Dominic Curtin EI9JS

Rallies

This year the club had a large table of useful and interesting stuff for sale at the Coolmine, Limerick, Galway and Enniskillen rallies. We noted that there were larger crowds of people attending these events on the days.

Field Days 2018

The club participated in the VHF Field Day this year operating from our usual site on the hilltop of Sleive Carn. The team consisted of Dominic EI9JS, Padraic EI9JA, Pat EI5IX and Jimmy EI2GCB; all arrived about 9 am to set up. A 5-element beam and an Icom 7300, attached to a computer and power supply was set up in the van which acted as a shack (below). A new generator was tested as the old one had given up on a previous occasion.

Everything performed well with no noise noted on the radio. We worked 13 stations the best distance being Spain. We also ran FT8 mode and a contact into EA8 was the highlight for the day. During the morning some of the club members came to visit the station and try the equipment. The team and the dogs had a great time, and several different operating methods were tested for the next time.

We had planed once again to activate the Blacksod Lighthouse on the Mullet Peninsula on the West coast of Ireland on HF and VHF bands over the weekend of 18th & 19th of August but weather and unforeseen circumstances were against us; it was not to be. We apologise to those who were collecting lighthouse activations.

Information

From time to time the club or its members like to sell/part exchange equipment, so we have an "items for sale" section on our website, check it out you may find something of interest — www.ei7mre.org

Members of the Mayo Radio Experimenters transmit the IRTS Weekly Radio News Bulletin in Mayo each Sunday evening at 9.00 pm on 145.600 FM on the 2m repeater.

If you require more information about the club please contact the club secretary Brendan EI6IZ at QTHR or by dropping an email to mayoradioexperimentersnetwork@gmail.com

Why not come along to any of our meetings on the first Wednesday of each month at 9.30 pm local time in the Breaffy House Hotel, Breaffy, Co Mayo. Check out the website www.ei7mre.org and you can also join us on Facebook.

New members or anyone interested in learning more about amateur radio or intending sitting the HAREC examination are as always very welcome to attend.



Date of Next Licence Exam

The next Amateur Station Licence Examination will be held on Thursday 15th November 2018 in the ComReg offices in Dublin and at other centres if warranted by the numbers.

The **closing date** for applications to sit this exam is Thursday **1st November 2018**. Places for exams at the ComReg Offices are limited; they are allocated on a first come, first served basis and are only reserved on receipt of an application form and the examination fee.

To reserve a place candidates should forward a completed application form to Joe Ryan EI7GY. The IRTS website has Joe's contact details and other information about the exam at www.irts.ie/exam

Please note new email address: exam@irts.ie

IRTS Committee Meetings

IRTS would like to remind all affiliated clubs to nominate a member of their club who is also a member of IRTS to act as the club's representative for this year. Some clubs have already done so. For additional information regarding this role, please make contact with the IRTS Secretary.

IRTS Officers and Club Reps are entitled to attend the monthly IRTS meetings and are most welcome. While not essential advance notice of attendance to the Secretary would be welcomed to facilitate seating arrangements.

Meetings are generally held on Saturday starting at 11.00 and finishing at 1300.

Forthcoming Meetings

Saturday **8th Sept** 11am Creggan Court Hotel, Athlone
Saturday **20th Oct** 11am Maldron Hotel, Portlaoise
Saturday **8th Dec** 11am Creggan Court Hotel, Athlone



IRTS Counties Contest

Sunday 9th September 2018

70cms: 1pm to 2pm local time

2m: 2pm to 4pm local time

Full details are at www.irts.ie/contests

Graphic: John EI7GL

Valentia Transatlantic Cable Station

A brief history by Kerry Amateur Radio Group

Prior to the laying of the transatlantic cable it took approximately two weeks from a message to reach North America from Europe... weather- permitting, as all communications were sent via boat.

The idea of a transatlantic cable was first proposed in 1845, but the distances and depths presented formidable problems. In 1856 the Atlantic Telegraph Company was registered with a capital of £350,000 (then about \$1,400,000). On the American side Cyrus W. Field was the driving force; on the British side it was Charles Bright and brothers John and Jacob Brett.

The First Cable

The manufacture of the cable started in early 1857 and was completed in June. Before the end of July, it was stowed on the American Niagara and the British Agamemnon — both naval vessels lent by their respective governments for the task. They started at Valentia Harbour in Ireland on 5 August. For the first few days, everything went well but six days later, due to a mistake made with the brake which limited the rate of descent, the cable snapped. Just 380 miles had been laid.

The ships were forced to return to port. An extra 700 miles of cable was made for the second attempt which began on 25 June 1858. This time the same two ships met each other in mid-Atlantic where they joined their respective ends. The cable broke almost immediately. Again, the two ships made another splice: this time they managed 40 miles before it broke again. The fourth time they had laid 146 miles before the cable was lost yet again. It was clear that this was not going to be easy! The two ships returned to Ireland but it was decided that, despite the loss of a considerable amount of cable, they still had enough for a further attempt. On 29 July they made their fifth attempt, again starting from the mid-point. This time it worked! On 5 August 1858 both ships reached their destinations – Valentia Harbour in Ireland and Trinity Bay in Newfoundland. The two continents were joined.

On 16 August communication was established with the message *“Glory to God in the highest, and on earth, peace,*

good will to men.” Unfortunately, the engineer in charge, Wildman Whitehouse, started by applying very high voltages rather than the very weak currents that had been tested during the cable laying. Within three weeks the damage inflicted on the cable by the high voltages was becoming apparent and it ceased to work.

The Second Cable

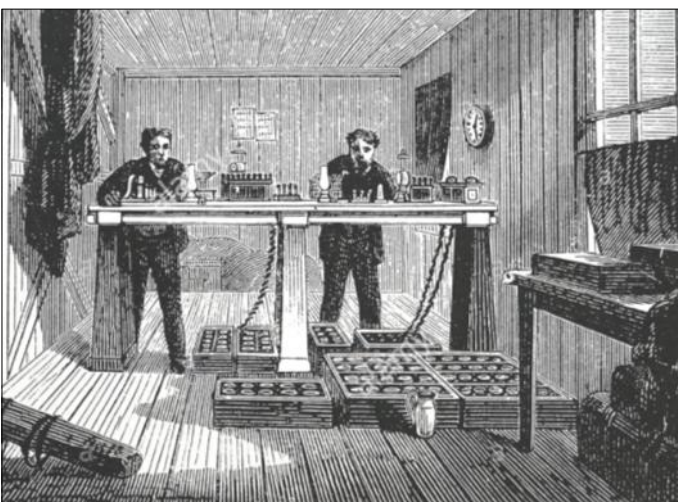
It took several years before another attempt was made. This time a single ship was chartered, the enormous Great Eastern, by far the largest ship of its day. She started from Valencia at the end of July 1865 and succeeded in laying 1,200 miles before the cable snapped. Several attempts were made to retrieve the broken end but they all failed.

Third Time Lucky

After so many failed attempts, the final, successful, cable was laid with virtually no problems. On 27 July 1866, the cable was pulled ashore at a tiny fishing village in Newfoundland known by the charming name of Heart’s Content. The distance was 1686 nautical miles Valentia Island. The Great Eastern had averaged 120 miles a day while paying out the cable. The first message sent on this, finally successful, cable was: “A treaty of peace has been signed between Austria and Prussia”. Queen Victoria, then at Osborne, in the Isle of Wight, sent a message to the President of the United States. “The Queen congratulates the President on the successful completion of an undertaking which she hopes may serve as an additional bond of Union between the United States and England.”

Almost immediately, the cable opened for business but only the very wealthy could afford it – the initial rates were a startling \$1 a letter, payable in gold – at a time when the monthly wage for a labourer might be \$20.

It is interesting to note that even though later cables could carry large numbers of signals at the same time, it was not until the 1960s that the first communication satellites offered a serious alternative to the cable, and in 1966 the Transatlantic Cable Station closed its doors for the last time.





Fox Hunting

Keith Crittenden EI5KJ [keithcrittenden\[at\]gliderireland.net](mailto:keithcrittenden[at]gliderireland.net)



The South Eastern Amateur Radio Group 2m Foxhunt Jenkinstown Woods Jenkinstown, Co. Kilkenny Saturday 21st Of July 2018

Author's Note: No foxes were hurt during the following event

Radio 'Fox Hunting' is merely a nickname for Amateur Radio Direction Finding and has nothing whatever to do with the hunting of any form of wild life. Such events can be arranged using various frequency bands and operated in many different ways. This is the story of just one such hunt, conducted by the South East Amateur Radio Group (SEARG), in July 2018. I urge you to grab a cuppa (and a biscuit, if your waistline will allow) and read on —

Earlier this year I'd not long been out of hospital, after a general anesthetic to have my wallet opened, when I was approached by a fellow member of SEARG and asked about the possibility of participating in an ARDF Fox Hunt later in the summer. My immediate response was to wonder how much such a venture would cost me. My pulse returned to near normal when told that I probably already had most of the equipment needed and any additional gear could be made quite cheaply.

Many years before I'd belonged to a club in Britain where

they held regular radio Fox Hunts. There was a particular member, one of the 'old boys' of the club, who smoked a pipe. (In those days every club had such a patriarchal member. They seemed to think that pipe smoking gave them an air of gravitas and authority.)

I asked him his view on Fox Hunting. As anticipated, before answering, he reached into the two side pockets of his jacket and withdrew his pipe from one and a small amount of tobacco from the other. Having rolled the tobacco between the palms of his hands, he poked it into his pipe and lit it. Then, after drawing heavily once or twice, promptly disappeared behind a cloud of atomised St. Bruno, but could be heard to declare, (in a rather upper class accent) "Capital idea! You'll learn a lot about propagation, signal strength and*splutter!* - *splutter!*....." The poor fellow burst into a fit of coughing which rendered him incapable of completing his sentence, but I got the impression he approved of the concept.

So what is radio Fox Hunting? Basically, ARDF-ing is a game of hide-and-seek. One amateur hides with a low power transmitter in a similar way that a fox might 'go to ground'.

The other members (the hunters) try to find the Fox by tracking its periodic transmissions on a prearranged frequency at prearranged times. (One thirty second long transmission every minute, or whatever the group chooses.) Simple ain't it!.....Well actually, no! As with most sports the idea sounds incredibly simple, (like 22 grown men spending 90 minutes trying to kick a ball between a couple of white posts), but the reality is somewhat more challenging. Although all radio signals travel in straight lines they also have a tendency to 'bounce' or 'reflect' off certain objects. At very high frequencies (VHF), things like hills or buildings (particularly metal buildings) and even cars or metal gates can reflect the radio signals thereby causing the hunter to think the radio wave is originating from somewhere that it isn't.

Fox Hunts can be conducted over short local distances, or larger distances known as 'orienteeing' type hunts that involve map reading skills, or indeed over many square kilometers requiring the use of motorised transport. All these aspects add together to make Amateur Radio Direction Finding quite a challenge depending on just how the 'Hunt' has been set up.

There are no fixed rules; it's up to the individual group to decide what they want. In the story I'm about to tell we decided to have a pedestrian-type hunt within a large wooded area known as Jenkinstown Woods, Co. Kilkenny.

So, are you sitting comfortably? Then I'll begin.

Make no mistake, this was no Teddy Bear's picnic. The desire to be the one to find the hidden fox in the least amount of time was palpable.

It was a fun day all right. The weather couldn't have been better (it didn't rain) and the location was great for such an adventure with lots of forested area and intersecting pathways offering plenty of concealment for the fox to hide. This was the first venture SEARG had made to this particular QTH so it was all new to us.

The picture opposite shows the members who attended. There was a dozen of us in all plus Widget, the club mascot.

As the winner of the club's previous hunt, Eoghan EI5HBB was the first to hide the fox in a not too obscure place so that members for whom this would be their first hunt had a chance to learn the ropes, so to speak. As we discovered, placing the fox in a wooded area produced some disconcerting reflections as the signals bounced off trees and obstacles. So knowing which was the correct signal path to follow proved to be a bit of a lottery requiring a fair bit of walking to establish exactly which direction gave the most accurate overall signal reading.

Talking of signal readings, perhaps the cheapest handheld rigs to use are the little Chinese rigs like the Baofeng range. Although the S (signal strength) meter is not very conspicuous and the rigs have no internal attenuator, three or four of us used these with considerable success on the day in question. Other members used the more traditional



Some of the Hunters trying to zero in on a 2mtr signal before the Hunt started.

manufacturers branded rigs which made some aspects of hunting down the transmitter that bit easier. The above mentioned matter of being able to attenuate the received signal is one such advantage. You see, when the hunter gets within a few tens of meters from the transmitter the S-meter of the receiver tends to show a full-scale reading regardless of where you point the antenna, leaving the hunter unable to establish exactly where the signal is coming from! By switching on a rig's attenuator this can stop, or at least reduce, the internal circuits becoming overloaded or swamped by the strong signal and once more allow the S-meter to indicate from which direction the signal is being received.

Another famous way to overcome this swamping of the receiver's electronics is by tuning the receiver to the third harmonic of the transmitted signal, simply done by multiplying the transmitters signal frequency by three, and tuning the receiver to that frequency. The third harmonic, which is an incidental signal that transmitters put out, is always much weaker than the main signal. Consequently it tends not to overload the receiver. Tuning to this weaker signal has a similar effect to switching on an attenuator in that it allows the hunter to see from which direction the aerial produces the highest signal reading. There are other ways of reducing this overloading effect and a quick search on Google will help you decide which solution might be best for yourself.

Enough of all this technical stuff, let's get back at the hunt —

When the hunters had all found the fox Eoghan hid it a second time, but on this occasion he did his work with vengeance — as we found out.

The hunters left the assembly area at five-minute intervals. The idea was that as each hunter found the fox, they would note a number that Eoghan had written on the top of the fox's case and return to the assembly area to declare that number, as proof that they had found the transmitter.

So off I set. Multiple signal paths of seemingly equal strength made for a lot of false journeys. Walking through and over



Sue and Shirley, unsure of the signal direction. Eventually they found the Fox though..



A collection of Tape Measure antennas, one with its elements folded in for ease of transportation.

gorse, bramble, and even, (during the drought) wet slippery moss took its toll on bare flesh. My arms soon started getting scratched, and poor Sue (SWL) was wearing shorts! Often I fought my way through some of this undergrowth only to find (A:) the fox wasn't there and (B:) "Where am I? How do I get back to a pathway??" Being totally absorbed in looking at the receiver you tend to lose track of just where you are in the woodland, and more importantly, how to get out.

Strangely, despite the fact we'd all left at different times, most of us met up, all heading in roughly the same direction. I met up with Seány, Alex, Connor (who managed to fall down a rather slippery hole,...ooopppss) and Wayne. All our gear was telling us that the fox was very close to hand but we just couldn't see it. Eventually, one by one, we spotted it, Phew! Walking back, I passed team Sue and Shirley still hunting. Sue was waving her pink antenna around with great gusto. They were very tenacious, them girls.

Turning to the question of appropriate antennas, by far the most popular is the three-element so-called "tape measure" antenna. Very cheap and simple to make, a quick internet search will offer dozens of images and statistics. Having said that, I chose a slightly different course and went for a HB9CV design. Why? It's a two-element antenna thereby making it slightly shorter, it has fair gain and a very good front-to-back ratio, I already had the materials needed, (making it very cheap to produce) and I like to be different!



Wayne, on the left, is helping Sue and Alex make their antennas.

'Back in the day' when lots of ham equipment was home-made my friends and I would get together and try making or experimenting with whatever gear we needed. These events were known as "Social Workshops."

In one of the pictures you can see such a social workshop in the kitchen of Wayne EI7HKB. In it Alex, as well as Sue (both SWLs), are taking advice on the construction of 2m 3-element tape-measure yagis. It's always more fun to do it with friends, and it gives you someone else to blame if it doesn't turn out right.

Talking of antennas, as we all know, the polarisation of a radio signal is dictated by the orientation of the antenna. Most Fox Hunt transmissions are frequency modulated with the transmitting antenna vertical. This creates a vertically polarised radio wave. To receive the strongest signal indication on the S-meter the elements of the receiving antenna should also be vertical. Now, it turns out that when a radio wave is reflected off of something its polarisation tends to change. Hunters can use this to their advantage. You see, when a Hunter is receiving a signal he can change the orientation of his antenna to determine the polarisation of the signal. If it is not vertically polarized then it's probably a reflection and can be ignored. If any reader is tempted to have a go at this aspect of the hobby this is definitely something worth remembering.

Meanwhile, back at Jenkinstown Woods

Believing that all the hunters had finished hunting a certain



David EI6GVB still searching for the Fox, not knowing it was QRT and had returned to the assembly area, poor fellow.

member (who shall remain anonymous) picked up the fox transmitter and returned it to the assembly area.

Unfortunately poor David EI6GVB was still in the woods searching for it! He was left walking round in circles looking for a signal that no longer existed! Oh, we did feel sorry for him but it all formed part of the days' craic.

Eventually our friend David returned from his 'adventures', much to the embarrassment of the member who had prematurely removed the Fox. There was a lot of leg pulling about that as we took a well earned break—we had spent an hour or more hunting in the hot temperatures and were beginning to wilt.

And so we came to the final hunt of the day and Seany EI2HZB kindly agreed to act as fox. Upon reception of the fox's signal the hunters began leaving at their allotted times. Again it was a case of "Does the signal get stronger if I walk in this direction?".... Walk a few hundred meters...."No"..... So walk back and try again! It was what I call 'frustrating fun'. I think we all learned from our experiences that day and by the end of this, the third hunt of the day, I don't deny my feet were aching. Alas, aches and pains are one of the joys that come with age.

So, was it all worth it? I suppose that rather depends upon your point of view. If we consider that most aspects of ham radio tend to happen with operators in relative physical isolation, then having all participants operating out of a single location definitely creates a greater sense of camaraderie, collectiveness, and mutual assistance. Certainly banter

between members is more spontaneous as a physical group than it is on air and when the weather is good there is the overall pleasure of being out in the fresh air while enjoying the company of like minded friends.

It's said that actions speak louder than words. So perhaps the best method of answering the question "Was it all worth it?" is to ask another question, "Will we be doing it again?" And the answer to that is a very definite, "Yes!" (And soon.)

Finally, in case you are tempted to try your hand at some of this mutual outdoor malarkey, here are a few tips that I would modestly suggest you note before you start Hunting:

- ♦ Enter the main (fox) frequency and into one of your receiver's memories
- ♦ Enter the third-harmonic frequency into another memory (so you can switch between the two)
- ♦ Make sure the squelch control is 'Off'.
- ♦ If your rig has an attenuator make sure it is also "Off" at the start of the Hunt.
- ♦ Remember which polarisation the fox's signal will be transmitting. (Normally vertical for FM).

Oh, and one more thing just as an aside. These fox-hunting antennas that I mentioned earlier are also very good for portable satellite operation — can't think why that would come into my mind.

Anyway, good hunting and
Tally-Ho!

IRTS AGM 2019

13/14 April 2019

Hodson Bay Hotel, Athlone

Lectures, Dinner, Radio & Electronics Fair and AGM



Hosted by Shannon Basin Radio Club

Preliminary information on www.irts.ie/agm

Email info@shannonbasinradioclub.com

New Band Plans for New Spectrum 30-70.5 MHz

Introduction

Following an IRTS request made in response to a recent consultation process, ComReg determined early in 2018 that the amateur service may use the frequency bands 30-49 MHz and 54.0-69.9 MHz on a national secondary basis. In addition the current 4 metre 70 MHz band has been extended to 69.9-70.5 MHz, which means that the International Amateur Radio Union (IARU) Region 1 4m bandplan can now be fully implemented in Ireland. The new frequency bands are listed among the bands generally available to radio amateurs in Annex 1 of the Irish Amateur Station Licence Guidelines document ComReg 09/45 R4 which is available for downloading from the ComReg.ie website.

In May 2018 IRTS initiated a public consultation process in respect of how Irish amateur licensees and licensees in other countries believed spectrum in the range 30.0–69.9 MHz should be utilised.

IRTS' initial thoughts were sent to International Amateur Radio Union Region 1 (IARU) Member Societies (or representatives) in Denmark, Slovenia, South Africa and United Kingdom which have beacons or an allocation at 40 and/or 60 MHz. In addition an invitation to comment was sent to 70MHz.org, IARU-R1 VHF and Microwave Committee and the UK Six Metre Group. Comments were gratefully received from EI7GL, EI8EJB, EI8JA, G3XBM, KU3N, LY2YR, ON4TA and TF3KB. Many of the issues raised by respondents have been incorporated into the bandplans proposed in Tables 1 and 2 following.

The New Spectrum available in Ireland

30 – 49 MHz (8 metre band)

Currently there is no regional or international allocation to the amateur service in 30-49 MHz in any of the 3 ITU/IARU Regions. However the absence of reliable and identifiable signals in this frequency range means that the progress of a propagation event starting in the HF range circa 28 MHz cannot be reliably tracked as it progresses towards 50 MHz and beyond. Nor can general experimentation take place with amateurs in countries which have a national 8m allocation.

In 1995 the management body of a CEPT Detailed Spectrum Investigation (DSI) consultative process raised this issue in their published report as a result of several inputs from amateur radio interests to the DSI consultative committee. CEPT is the 48 Member State European regulatory body which addresses spectrum management issues. The DSI management body were persuaded that propagation beacons could be located at appropriate geographical sites, chosen in order to minimise the possibility of interference to other radio services. The DSI report queried whether the ISM (Industrial, Scientific and Medical) band centred on 40.68 MHz would be

appropriate for such beacons, possibly using frequencies interleaved with on-site paging applications. It was felt that a secondary allocation to the amateur service would also be appropriate.

Since the DSI, IARU has encouraged their national Member Societies to deploy multi-band beacon clusters covering low VHF between 30 MHz and 70 MHz. Beacon clusters should wherever possible provide signals at circa 40 MHz and 60 MHz to supplement those beacons already providing emissions at 28 MHz, 50 MHz and 70 MHz. Amateurs are also encouraged to set up and maintain automated monitoring stations in order to contribute measurement results to the scientific community. A common transmission format is proposed to aid the reception of multiple clusters.

In the last number of years Denmark, and the UK have authorised such beacons near 40 MHz, e.g., on 40.071 and 40.050 MHz respectively, Slovenia has released the band 40.66-40.70 MHz to the amateur service and South Africa has released the band 40.675-40.685 MHz.

Based on the comments received since May, IRTS has developed a bandplan for the frequency band 40–44 MHz, (8 metres); see Table 1 following. For the time being usage of 30-40 MHz and 44–49 MHz has not been planned. Furthermore IRTS considers that the band most likely to be transverted to an IF of 28–30 MHz would be 40–42 MHz.

54.0–69.9 MHz (5 metre band)

Historically in 1949 the 5 metre amateur band was 58.5–60.0 MHz and in earlier times 56-60 MHz. The same band extended to 69.9 MHz would therefore seem appropriate for amateur propagation studies and experimentation on a national secondary basis to facilitate scientific research. The UK already has an amateur propagation beacon on 60.050 MHz.

A 5 metre band will also facilitate digital television in addition to all other modes and bridges the 4 metre and 6 metre allocations, although we have to await the outcome of the 2019 ITU World Radiocommunication Conference to determine whether the amateur service in Region 1 will gain general or partial access to the 50–54 MHz frequency band.

Taking account of the foregoing IRTS has developed a draft bandplan for the frequency band 54–69.9 MHz (8 metres); see Table 2 following.

Furthermore, IRTS considers that the band most likely to be transverted to an IF of 28–30 MHz would be 58–60 MHz.

IARU Bandplans

The VHF and microwave committee of IARU Region 1

prepares, revises and maintains the official IARU Region 1 bandplans for 50 MHz, 70MHz, 145 MHz, 435 MHz as well as the microwave bands. VHF Managers are requested to give maximum publicity to the adopted bandplans. In view of the many newcomers to the hobby, regular publication of the bandplans is advised. Member Societies, and particularly their VHF Managers or VHF Committees are strongly tasked to promote adherence to the adopted bandplans by amateurs in their country.

Concerning the usage column in the bandplans, operators should take notice of these agreements which are made for operational convenience, but no right to reserved frequencies should be derived from any mention in the usage column or from referenced notes. Users should be aware that these bandplans are generic for all members states of IARU R1. They can be more detailed in some Member States due to practical reasons or legislation. Therefore IARU advises amateur licensees to study and implement their national bandplans where these vary from the IARU plans.

Concerning the 5 Metre and 8 Metre bandplans prepared by

IRTS and subject to their approval by the IRTS committee, it is intended to submit the bandplans for information to the IARU VHF and microwave committee prior to the 2019 Vienna interim meeting of IARU Region 1

Next Steps

Tables 1 and 2 on Page 18 are suggested bandplans for most of the 5 and 8 metre spectrum granted to the amateur service in Ireland by ComReg. The plans are loosely based on the current 50–54 MHz IARU bandplan and have been in the public domain since May 2018 by means of the IRTS web-site. Once agreed, the bandplans can be offered to ComReg for comment and work can subsequently begin on upgrading some existing beacons and procuring beacons in the new bands. It is likely that transverters will be available in the not too distant future to transvert 40-42 MHz and 58-60 MHz to 28-30 MHz.

Additional comments from Echo Ireland readers are also welcome.

See Tables on following pages.

Final Report to IRTS Committee from New Spectrum Sub-Committee (NSSC)

The NSSC reviewed the latest draft bandplans for the frequency bands 40-44 MHz and 54.0-69.9 MHz on 6 August 2018 during a conference call. Séamus McCague EI8BP, Joe Ryan EI7GY, Steve Wright EI5DD, and Dave Court EI3IO participated in the call.

The basis for the plans was explained; firstly the frequencies already in use for beacons circa 40 and 60 MHz were taken into account. Secondly, the band available to the amateur service in Slovenia and South Africa 40.66-40.70 MHz, the 40.68 MHz industrial, scientific and medical (ISM) band was addressed. At 60 MHz the historical pre-war 5 metre band was considered. The resulting draft bandplans had then been subjected to a consultative process and a number of comments were received.

The NSSC decided that the bandplans should now be adopted as the Irish national band plans and that these should be forwarded to the VHF and Microwave Committee of IARU for consideration at the Interim meetings in 2019. It was also agreed that the band plans should be forwarded to ComReg to ascertain whether there were any particular frequencies which should be avoided, which had not already been taken into account by IRTS.

It was further agreed that the attached article should be published in the September issue of Echo Ireland and the finalised bandplans should be available on the IRTS web-site. It is now time to procure and commission propagation beacon clusters in the range 28.0-70.1 MHz as described in the attached Article (above).

The work of the NSSC has now concluded and although convened quite recently in May 2018, the Sub-Committee can now be dissolved.

The Chairman, Dave EI3IO would like to thank the members of NSSC for their help as well as the persons and organisations which responded to the call for comments for their useful and pertinent input.

Table 1 Irish 40–44 MHz (8 metre) Band Plan for Amateur Service

Frequency	Maximum Bandwidth	Mode	Usage
40.000 40.100	1000 Hz	Telegraphy MGM	<u>Lower Beacon Band</u> 40.013 (Ireland) planned 40.071 (Denmark) and 40.050 (UK) operational.
40.100 40.200	500 Hz	Telegraphy	40.150 CW centre of activity and CW calling frequency. 40.190 – 40.200 future intercontinental CW DX sub-band
40.200 40.300	2700 Hz	Telegraphy SSB	40.200 future CW and SSB intercontinental DX calling frequency 40.200 – 40.230 future intercontinental SSB DX sub-band 40.250 SSB centre of activity and SSB calling frequency. 40.285 SSB cross-band centre of activity
40.300 40.400	2700 Hz	MGM Narrowband Telegraphy	40.305 PSK Centre of activity 40.310 -40.320 future EME centre of activity 40.320 -40.380 MS centre of activity
40.400 40.660	12 kHz	All Modes	40.410 SSTV 40.440 -40.480 Simplex FM Internet Voice Gateways 40.490-40.510 NOT TO BE USED 40.520-40.650 Digital Communications 40.470 Image Frequency 40.600 DV calling Note: Avoid 40.49-40.51 (3rd harmonic falls close to 121.5 the aeronautical distress frequency)
40.660 40.680	1000 Hz	Telegraphy MGM	<u>Upper Beacon Band (Subject to change)</u> 40.661 – 40.674 Slovenia 40.675 – 40.679 South Africa Applicable for countries where Amateur Service allocation is limited to all or part of the ISM band 40.66 – 40.70 MHz
40.680 40.700	2700 Hz	Telegraphy MGM SSB	SSB frequencies 40.681, 40.684, 40.687, 40.690, 40.693, 40.696 SSB calling frequency 40.681 MHz (Subject to change) Applicable for countries where Amateur Service is limited to all or parts of the ISM band 40.66 – 40.70 MHz
40.700 42.000	12 kHz	All Modes	40.710-40.890 FM/DV Repeater Inputs, 20 kHz spacing 1.1 MHz I/P-O/P 41.210 -41.390 FM/DV Repeater Inputs, 20 kHz spacing (paired with 56.810 – 56.990 15.6 MHz I/P-O/P) 41.410 -41.590 FM/DV Simplex 41.500 FM calling frequency 41.810 – 41.990 FM Repeater Outputs, 20 kHz spacing (paired with 40.710-40.890 1.1 MHz I/P-O/P spacing)
42.000 44.000	500 kHz	All Modes	Could be paired with 52 – 54 MHz and/or 54-56 MHz (subject to the outcome of WRC-19 and/or the CEPT ECA

Table 2 Irish 54.0–69.9 MHz (5 metre) Band Plan for Amateur Service

Frequency	Maximum Bandwidth	Mode	Usage
54.000 56.000	500 kHz	All modes	Could be paired with 42-44 MHz Note: R2 BC NTSC video carrier 55.25 MHz
56.000 58.000	12 kHz	All Modes	56.010 – 56.090 1.8 MHz I/P-O/P FM/DV repeaters input channels, (20 kHz spacing paired with 57.810-57.890) 56.100 – 56.800 Digital communications 56.810 – 56.990 15.6 MHz I/P-O/P FM/DV repeaters output channels, (20 kHz spacing paired with 41.210-41.390) 57.810 – 57.990 1.8 MHz I/P-O/P FM/DV repeaters output channels, (20 kHz spacing paired with 56.010-56.090)
58.000 59.500	12 kHz	All Modes	58.000 – 58.475 FM/DV Simplex 58.500 FM calling frequency 58.540 – 58.580 Simplex FM Internet Voice Gateways 58.610 SSTV 58.620-58.750 Digital communications 58.550 Image frequency 58.630 DV calling Note: R2 BC NTSC colorburst 58.30 MHz
59.500 59.600	2700 Hz	MGM Narrowband Telegraphy	59.505 PSK Centre of activity 59.510 – 59.520 EME centre of activity 59.520 – 59.580 MS centre of activity
59.600 59.700	2700 Hz	SSB Telegraphy	General Use 59.685 for cross band
59.700 59.800	2700 Hz	SSB Telegraphy	59.710 -59.750 International SSB DX window 59.710 International SSB calling and centre of activity 59.750 SSB National calling and centre of activity
59.800 59.900	500 Hz	Telegraphy exclusive	59.850 CW National calling and centre of activity 59.870-59.890 International CW DX window 59.890 CW International calling and centre of activity
59.900 60.100	1000 Hz	MGM Telegraphy	Beacon Band 60.050 (UK) operational 60.013 (Ireland) planned
60.100 69.900	8 MHz	Experimental Broadband	Centre Frequency 65.00



Youngsters on the Air YOTA 2018

Nathan Prentice MI0NPR *nathanprentice830@gmail.com*

Youngsters on the Air, YOTA, was in South Africa this year, and I was one of the lucky four people from the UK who were selected by the RSGB to go on this once-in-a-lifetime trip. It was an experience I will remember for the rest of my life, we had great fun, completed lots of activities and made some brilliant friends along the way.

We had a packed schedule while we were over there, each day full of all things amateur radio! If I mentioned all the activities we done in this article, it would be ridiculously long, so I'll share some of the highlights below.

The first day began with an introduction to SDR, where we were all kindly given SDR dongles by the South African Radio League (SARL). We were taught how to use these dongles, and integrate pieces of software such as Gpredict with SDRSharp to track satellites. Later on, we had great fun assembling some yagis for our handheld 2m/70cm radios. These antennas worked great, and we even managed to work some satellites with them while we were over there! We had a talk from the local cheetah conservation centre, based nearby where we were staying, and little did we know that after the presentation they would bring in a real cheetah! A big surprise for the UK team, who were sitting in the front row!

We had an 'intercultural evening' that night, where local food and drink was sampled from countries all over the globe. Northern Ireland was represented by possibly the finest crisps known in existence, Tayto crisps!



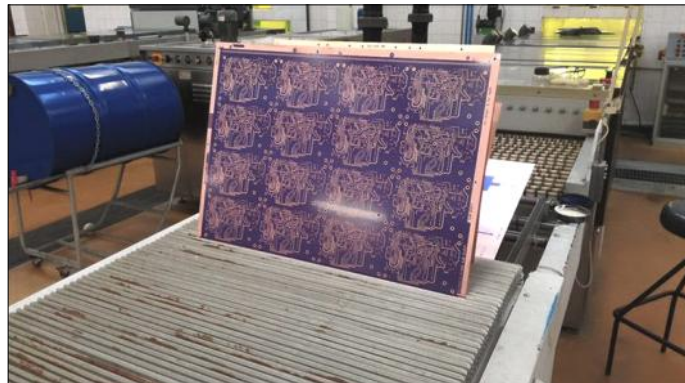
The next day, we designed and built a payload which would be attached to a high-altitude balloon and flown to the edge of space on the following day. This was a truly amazing experience and we used the yagis we built to track the balloon (picture on next page) as it swept its way across South Africa and almost into Swaziland. While the balloon was in flight, we were given a Rapid Deployment Amateur Radio demonstration (RaDAR), where I made my first contact using my full callsign, MI0NPR, which I had received about a week before leaving for South Africa. The payload which we designed had pressure and temperature sensors, so we carried out experiments while the balloon was in flight. We analysed the data and gave a brief presentation at the end of the day on our findings. Did I forget to mention the balloon launch was

at 4:30am, and the temperature was -6°C; nevertheless, a brilliant day of fun!





Tracking the balloon with the home-built yagi

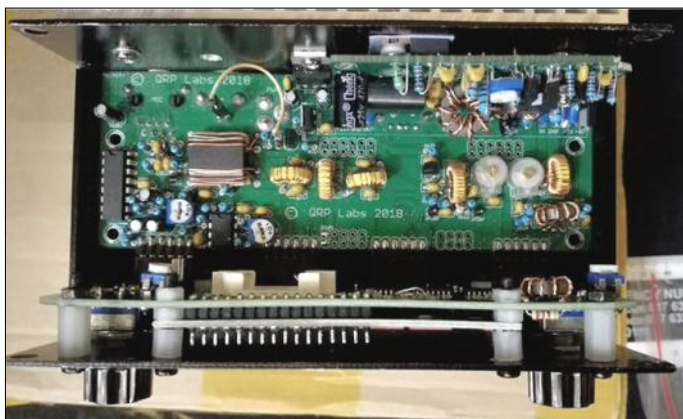


PCB manufacturing facility



L: The Author makes his first QSO; R: with Koos ZR6KF

The next main highlight was building Hans Summers' new QSX kit, which was great fun to build. The kit is available from *QRP-Labs*. Keep up-to-date with this kit, as it's going to be a great performer, at a low cost. It took us about one full day and a few hours throughout the rest of the week to finish the kit (below). Hans has a plan for add-on boards, (the kit we built was for 40m) which will be available in the future that allows coverage of many more bands.



The day after, we went on an outing to Bosco, a local PCB manufacturer, where we were given a detailed and interesting tour around the factory. It was very interesting to see how PCB's are made, especially after just finishing off Hans' kit. The visit really showed the work that goes into making a single PCB and how Bosco aims to keep quality high and costs low.

Our final day of activities included a safari, where we saw many different animals, including zebras, buffalo, antelopes, wildebeests and many more animals. Unfortunately, we did not see any lions, but that wasn't all bad since there was no opportunity for them to eat us!

Our last night together was a great one, where we took part in an African drumming activity, which we all thoroughly enjoyed. We had an amazing last meal together, and an award ceremony for those who had taken a HAREC exam while in South Africa and passed. The people who took the exam only had around 4-5 hours to do all the preparation, many of whom had never taken an amateur radio exam before. These revision classes took place while the rest of the YOTA group was completing the QSX kit. The pass rate was very high, a big credit to those who had lectured and delivered the course in such a small time-frame, and those who had managed to retain all that information!



The final day, we all got ready to leave South Africa. The week went in much faster than anyone had thought, and we were all sad to go, but we would come back to our home countries with many new ideas to encourage more young people into amateur radio, which were discussed during many 'Train the Trainer' events which took place over the week. A huge thanks to the South Africa Radio League for all the time and effort which went into organising such an event, and a big thanks to the RSGB for making it possible for me to share in this adventure.

If you are part of a club and would like to hear a more in depth talk about YOTA 2018, and my experiences in South Africa, feel free to get in touch and I will happily give a talk to anybody who is interested.

73s Nathan M10NPR

[Normally I remove all references to food in reports, but I am a lapsed crispholic - Editor]



HF Happenings (and more)

Don Brennan EI6IL

ei6il1970@gmail.com

Hello all radio enthusiasts and welcome back to the shack of **EI6IL** located in the midrib of the wee County. The following script is more or less EI6IL's radio diary so to beef things up why not send in **YOUR** experiences and get a different perspective. The summer months are historically quiet due to outdoor activities and holidays. The HF bands were in reasonable shape over the last few months with all corners of the planet logged. I had a non-ham visitor from the USA in the shack recently and he wasn't all that enameled with the concept of the hobby. He asked, "why not Skype someone far away". I note that he is an avid mountaineer, so I quickly asked him why he climbs a mountain when he could easily get a cable car or helicopter to the summit!! The penny dropped with him and he sat for a few hours on and off while I gave him demos of different modes and bands. He got into the swing of things and before long got stuck into a pileup.

We were fortunate with good propagation to South America in the late evenings working **J88PI** and **PY6BA** on 20m SSB. 12m also open well into the dark hours working **PP5EJ** on 24.915MHz FT8. Changed bands to 30m and logged Japanese stations **JL8LTI** and **JH1HDT** on CW also working **FJ/N0KV** on 17m SSB and 30m CW with ease.

20m CW also in good nick with **3B8MB**, **XV1X**, **9Q6BB**, **OD5TX** and **XQ6CFX** making it into the log.

The summer mornings brought Hawaiian stations **WH7W** on 20m SSB and **WH6R** on 20m CW. Shifted to 30m with little or no DX on CW however worked **5W1SA** on the Samoan Islands, **AH7C** in Alaska and **ZL2IFB** in New Zealand on FT8! Looks like FT8 is so far winning "mode" of the year on all bands!!

Moved to 17m and quickly logged the Philippines **DUI/ JH1FNS** on FT8. Logged **PY5QW** + **V47CDC** on CW. Dropped down to 20m which was hopping with the Far East. Logged **E20AX** and **B5/IK7YTT** on SSB

I burned the midnight oil a few times over early summer and found immense conditions on 20m FT8 at 01:00 local time to West coast USA. Didn't quite make it to California although **WD6Y** heard me and called me at least a dozen times. Logged **KD7RF** in Arizona who was using a ground mounted vertical antenna with approx. 60 radials. Came across **5W20SAMOA** on his 30m cq call and quickly turned the beam in a Northwest direction which brought his signal up to a 579. He went split immediately after working me as bedlam set in.

Western Samoa is an island country located the South Pacific Ocean and shares maritime borders with American Samoa (United States), New Zealand, Tonga, and Wallis and Futuna (France). Samoans are known throughout Polynesia as the "happy people" because of their enjoyment of life and their good-spirited nature. It is also acceptable for a family who has too many sons, to raise the youngest boy as a daughter. He is known as a fa'afafine, is given a girl's name, wears feminine clothing and is even allowed to use the ladies' bathroom.

I turned my attention to the Novolazarevskaya Base in Antarctica as I saw **RI1ANL** spotted on 20 CW. He was

working simplex, so I got him barefoot while waiting for the linear to warmup.

Logged the Russian DX-pedition **C96RRC** on Mozambique Island AF-088 on 17/20/40m CW in one evening. Big pileups but very workable.

20m was in good nick as I worked Larry **DU3LA** on SSB. We exchanged a few pleasantries and I moved to CW where I worked Israeli special event station **4X70S**, **RI1FJ** on Franz Josef Land and **ZX7COM** which was a special Brazilian code issued to celebrate the week of communications in Brazil and to honour the performance of the CQMM DX CW contest.

Logged Rafi **4X4FR** on 20m SSB. He noted that he now uses only the driven element on his old Steppir beam in a fixed direction from East/West.

The operators from **C96RRC** moved to Inhaca Island AF-066 using a new callsign **C98RRC** and I quickly logged them on 40, 20 + 17 CW.

There were plenty of IOTAs knocking about in early summer as I came across **3F6IC** on the Island of Cebaco NA-071 off the coast of Panama. This was a new IOTA for me so happy out.

No complaints when **XE3R** gave me a call on 20m followed up by **ZP5DA**, **6W1PZ**, **A66A**, **JY5MM** and **EP3CSA**.

The recent DX-pedition to Mozambique **C8T** ended up with a tally of 17739 QSOs with 7485 unique calls. Only 5% of the total QSOs were with NA so the cluster exploded with anger to that effect.

I had a giggle when I read their QSL card instructions. "For donations above 20€, please sent us also your name & callsign and post-address by email, so you will receive your special double folded qsl-card for **FREE**". I finished up with 8 QSOs including a 40m FT8 contact.

South America had some super openings after dark logging **ZP5DA** with 10 watts SSB.

I had been on the lookout for a 40m QSO with **DP0GVN** on the Antarctic Neumayer Base. They duly obliged and I note



their signal was 599+. I then logged **C8T** followed by **9W2SAF** on 40m SSB.

Early summer brought another mini-DXpedition to Rodrigues Island AF-017 callsign **3B9RUN**. I only got them on 20/17/15m FT8 as they were not heard them on any other mode.

Kosovo is becoming a regular on the bands now as I came across **Z64EEF** cq'ing on 20 CW. No pileup so worked him with 30 watts. I also worked **Z68AA** on 20m SSB and thrilled to work **Z64EEF** on 10m SSB for a new country.

Shifted to 17m and worked **XQ6CFX**. Chile is a South American country bordered by the Andes mountains to the east and the Pacific Ocean to the west. It is officially the **Republic of Chile and is the longest country in the world** from north to south at 2,653 miles. You can also find the **world's driest desert** – the Atacama – in Chile. This place has not seen even a single drop of rain since record-keeping began. The world's **largest swimming pool is in Chile**. It is 1000 yards long, 20 acres in area and 115 feet deep. This giant pool holds 66 million gallons of seawater.

Vietnamese station **XV1X** wasn't the easiest to work on 40m CW as he was simplex and it was hard to pick out his call. Eventually got there after about 15 min's. I was saddened to hear that Eddy **XV1X** ran into ill health and is now a white stick operator.

I was delighted to work Valery **UA0ZC** from the Kamchatka Peninsula on 20m CW. It is said that it's a long way to Tipperary, well look on google maps for Kamchatka a staggering 8,000km from EI. The peninsula has a high density of 19 active volcanoes.

Took a swing across 6m and logged **9A4ZM** and **IWOCUK** on FT8. Unfortunately no CW heard at the same time but the band scope was alive on 50.313 MHz.

The **EIDX** group led by Declan **EI6FR** jumped into action from Inisheer island EU-006 using the callsign **EJ7NET**. I worked them on 40m SSB and later in the evening 80 SSB / 30 CW. Worked well known DXer Stan **RA/EI6DX** on 40m CW. Declan and the crew reported very poor conditions from the island as they turned to FT8 to get a decent QSO count on the board. I managed to work them on 20 CW, 40 CW and finished my lot with an 80m CW QSO. 80m was obviously the best band for a QSO with the lads.

South America is a safe bet during mediocre band conditions as I logged **ZP5DA** on 20m SSB, **PZ5XX** 17m CW, and **HC2GRC** all barefoot.



I was on the lookout for the rare Kagamil Island IOTA NA-234 but only managed to work **KL7RRC/P** on 20m FT8. Kagamil Island lies near the NE end of the Islands of the Four Mountains archipelago in the central Aleutians, between Chuginadak and Uliaga Islands. The southern half of 5 x 10 km Kagamil Island contains two undissected cones of postglacial age with small summit craters. The larger, 893m-high cone is located at the SE end of the NNW-SSE-trending volcano. Hot springs and fumaroles occur along a steaming beach at the SE coast.

The weekend of May 26th / 27th was wall-to-wall with the CQ WW WPX contest so I casually dipped in to work some of the more distant stations such as Hawaii **WH7AA**, **KH6LC**, **KH6TU** + **KL7SB**. They all had massive signals on 20m CW so I worked them barefoot. I have spoken to **KL7HRN** in Alaska on many occasions and dropped in to say a quick hello on 20m SSB. He was S9+20db with a little polar flutter on his transmission. This flutter is caused by geomagnetic field activity in the polar region affecting the ionosphere. I also worked **VY2TT**, **Z68BH**, **YV5ENI** on 20m. The bands go a little crazy on contest weekends so I normally head for some peace and quiet on 17+30m. I logged **ZB2RAF** and **JW8DW** on CW.

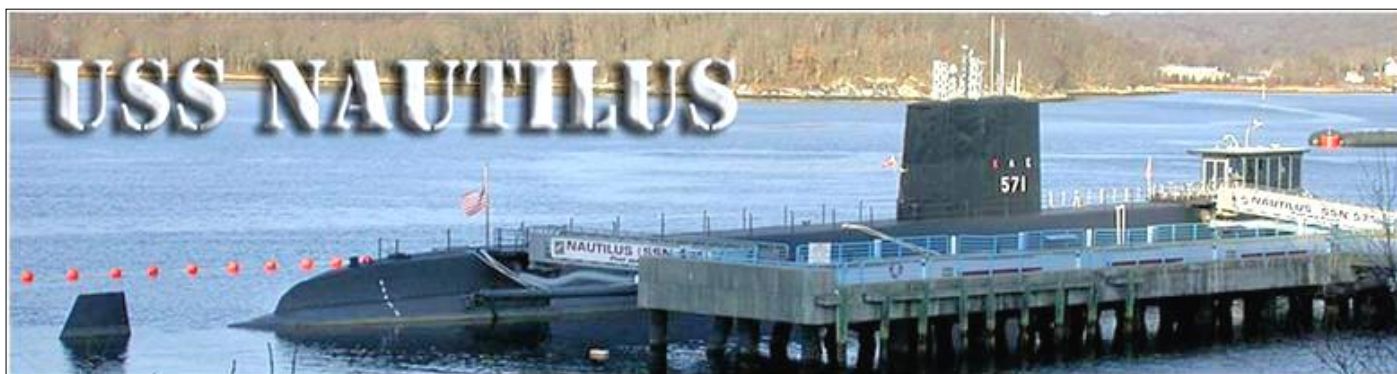
I came across the rare IOTA NA-234 callsign **KL7RRC/P** again but this time on 20m SSB. Logged **PV8AL** on 20/17/15m SSB in the space of two days.

Excellent HF conditions with all bands open up to 6m and beyond. I worked **9X9PJ** in Rwanda for the first time on 40m. It was also good to nail a few CW contacts on 6m.

The HF bands started to fill up in June with special event FIFA stations. Logged **HD18FIFA** in Ecuador on 20m SSB and CW followed by the Finish Oldhouse Radio Club callsign **OG0C** on Kokar Island (Aland Island group). Worked San Tome & Principe Island DX-pedition callsign **S9ZZ** on 15/17/30m FT8 fox + hound mode and came across them on 20/17 +15m SSB. Glad to report some CW on 17m logging **Z30FIFA**, **OM18FIFA** and **TI8II** (Costa Rica).

Another favourite of mine is to work Museum Ships which is normally activated on the first weekend of June every year. I didn't have a lot of time this year but was happy to log the historic nuclear submarine USS Nautilus SSN 571 on 20m CW. The USS Nautilus's Keel was laid by President Harry Truman at the Electric Boat Shipyard, Groton, CT, on 14 June 1952. She was launched 1 January 1954 and commissioned 30 September 1954 as the first nuclear powered ship in the United States Navy. Nautilus was decommissioned on 3 March 1980 after a career spanning 25 years and almost half a million miles steamed. On 20 May 1982 Nautilus was designated a National Historic Landmark and Connecticut's State Ship in 1985. The vessel has a displacement of 3533 tons (surfaced), 4092 tons (submerged) with an overall length of 324 feet and a top speed of 22 kt (surfaced) and 25 kt (submerged). It carried an armament of 6 x 21" torpedo tubes with a ships complement of 13 officers and 92 enlisted men.

I know the article is called HF happenings but there was super excitement for anyone interested in 6m as **EI** among others experienced a great opening to SA, Caribbean and NA on Sunday 3rd and Bank Holiday Monday 4th June. For all the FT8 bashers I am glad to report that both SSB and CW were breaking the doors down also. I worked 11 new 6m DXCCs from across the pond and 5 new ones in EU / Middle East. A



lot of experimenters haven't got the patience for the magic band but it's a thrill to work VHF too far away locations especially across the big pond. The CW portion appeared to be dead at times but after a long CQ I got an answer from **NP2J** in the US Virgin Islands. He peaked at 589 and I was delighted to get USVI's on 6m for the first time. Both Declan **EI6FR** and I worked **5A1AL** in Libya at 22:50 UTC. Indeed the bands suffered from a 6m hangover as the US and SA were poking their noses into EU for most of that week. I have read a lot about the demise of CW but I'm not so sure. Maybe go fishing by sending a CQ!!

The HF bands came alive in June with world cup special event stations with FIFA suffixes working round the clock. There was a football radio marathon on the bands dedicated to the football world cup 2018. I logged the Brazilian special call **PX18WC** on my low hanging dipole with 100 watts so no excuses if you are stuck for a contact with Brazil.

Another country that is no stranger now to the hobby is the station of **OD5ZZ** Walid in Lebanon. He puts out a tremendous signal and always has a good ear for EI. Many years ago I had an interesting tour of duty with the 80th INF Battalion working as **OD5/EI6IL** in my spare time.

The ham community was on the lookout for Craig **VK5CE** who is a great IOTA dxpeditioner. He spent only a day on Rottnest Island OC-164 so that one got away as work came first. He then activated East Lewis Island OC-199 which I logged on 40m SSB. He signs **VK5CE/6** but don't take this for granted as this call follows him from Island to Island. He posts his itinerary on QRZ.com and publishes a diary of his IOTA tours online.

I had kind of forgotten about 30m during the busy 6m spell of happiness so was delighted to find and log Iraqi station **YI0FIFA** running the almost redundant BPSK31.

The 20m band was again the workhorse as it brought **J32FIFA**, **9X9PJ**, **HZ18FWC** within a couple of minutes.

I had read with interest on DX-World that a group of amateurs mostly from Costa Rica intended on activating Uvita Island NA-155. I worked them late one night for a new IOTA on 20m SSB.

The small island of Uvita is located in the Caribbean Sea. Officially its name is Quiribrí Island, Quiribrí is an indigenous word that means birdsongs. Historically it holds a lot of importance to the country as it was here that Christopher Columbus arrived in 1502, he actually named the small island La Huerta (The Orchard).

On the morning of June 9th I heard the Marshall Islands call sign **V73NS** CQ'ing on 20m CW. I previously worked

Neil back in Feb 2013. My policy is **not** to work again on the same band if the DX station is busy but if the station goes unanswered for a while then I like to call in and say a quick hello. It's also a nice test of propagation. Turned out that he was CQ'ing for a few minutes without an answer. I fired up the linear and started calling him barefoot 150 watts and was delighted to send him a 559 report and received a 229 in return. During a small rag chew my linear kicked in and I received a new report of 579. Neil is also excellent on LOTW and acknowledgement of a QSO only takes a day or two.

The Marshall Islands are located in Oceania, two archipelagic island chains of 29 atolls, each made up of many small islets, and five single islands in the North Pacific Ocean, about halfway between Hawaii and Australia. Its mean height is only 2m making stormy weather a nervous time on the island.

Pooching around the bands and I came across **PV8DX** on 20m CW. He always presents a good signal into EI should anyone need him and is very receptive to an email sked. I also logged **PY7ZZ** around the same time and this man has a monstrous SSB signal into EU should he be required.

Another new station doing the rounds on HF is Eric **EL2EF** from Monrovia Liberia. I worked him on 20m SSB and he plans to get stuck into CW in the near future.

All the attention turned to VHF 6m on June 12th when the heavens broke loose and Ireland experienced super conditions in particular to the West.

6m FT8 brought **KP4EIT**, **WP4G**, **PJ4X**, **HI8JSG**, **KP4IA**, **YV6IA**, **HI8SMX**, **HI3T**, **EA8JT**, **9H1XT**, **CT3HF**, **GD0TEP** and **GJ8P**. I saw and heard a number of EI's taking advantage of a great opening which lasted a few days and into the early hours. 6m SSB and CW were relatively quiet but when I called CQ on CW I managed to nail **NP3J**.

HF was also in good condition during June as I logged **5X2B** and **S01WS** on 30m CW. Early one morning I came across **WH2JA** on 20 CW from Iota OC-026. His signal was rock bottom as I pointed short path 30 degrees. He came up to 579 on the long path. This is a simple adjustment so don't forget to check long path particularly for early morning DX. The most interesting observation is when the propagation changes between SP and LP. It's like the Ebb between low and high tide often exhibiting equal signal strength from both directions.

30m can be a gem of a band producing long distance DX. In EI it's not always possible to keep my motorised telescopic lattice up at a decent height for 30+40m so I use an Inv V configuration for a lot of DX but when the going gets tough I engage the 2 element 30/40m beam which helps.



Indonesian stations are plentiful on 20m ssb/CW and eminently workable as I logged **YB50SN** using my portable setup i.e. FT857d (100w) on a buddistick vertical. I also worked the mini DX-pedition **OJ0Y** to Market Reef EU-053. This was conducted by Col **MM0NDX** who is a well-known DX-peditioner and author of DXWorld online.

July brought another activation from Market Reef **OJ0C** which hosted “youths on the air”. Market Reef is a particularly challenging environment as it is located low-to-the-sea where waves are often rolling over the entire DXCC entity. With no jetty, landing can be hazardous with small zodiacs often being pushed hard by the sea. Life at the lighthouse is plain and simple with all participants sharing the daily duties. Pileups were never ending when the **OJ0C** callsign hit the airwaves with 22 **EI** stations in their logs.

The peak of this summer season for many **EI**'s was the end of June which brought the highly sought-after DX-pedition to **Baker & Howland Island KH1/KH7Z**. Voacap predicted 20m to be the usual workhorse band during the solar famine and it really did bear fruit. They finally broke through the noise on 14.210 MHz at 20:40z on June 27th and peaked at S2. They were working NA+JA. The usual DQRM kicked in on their SSB freq. They were spotted on the RBN on 14.023 but **OJ0Y** were on 14.022 listening up 1kHz. I could hear them on 023 in between the pileup. No fault to **OJ0Y** as they were on the frequency hours before Baker commenced operations. The band police slammed **OJ0Y** for no reason whatsoever.

June 28th I was in work very early and got notifications from the DX Alliance of good conditions on 20m CW. I got home for 08:00 and sat into the lucky shack chair prepared for the long haul but was pleasantly surprised by working them on the 4th 20m CW call. Logged them again within 10 more minutes on 20m SSB. They were transmitting on 14.210 and listening on 14.240. **EI** put in a good show finishing up with 68 QSOs but no idea of how many unique calls. I am sure

that a lot of **EI** experimenters were happy with making a contact with Baker Island for the first time.

Baker Island is an uninhabited atoll located just north of the equator in the central Pacific Ocean about 3,090 km's southwest of Honolulu almost halfway between Hawaii and Australia. Its nearest neighbour is Howland Island 68 km's to the north-northwest. Both Islands have been territories of the United States since 1857, though the United Kingdom considered them part of the British Empire between 1897 and 1936.

Located at 0°11'41"N 176°28'46"W, the island covers 2.1 km (0.81 sq mi), with 4.8 km's of coastline. The climate is equatorial, with little rainfall, constant wind, and strong sunshine. The terrain is low-lying and sandy: a coral island surrounded by a narrow fringing reef with a depressed central area devoid of a lagoon with its highest point being 8 m (26 ft) above sea level.

The island now forms the **Baker Island National Wildlife Refuge** and is an unincorporated and unorganized territory of the U.S. which vouches for its defense. It is visited annually by the U.S. Fish and Wildlife Service. For statistical purposes, Baker is grouped with the United States Minor Outlying Islands. Baker Island is also the last piece of land that experiences the New Year (earliest time zone).

In between the Baker excitement I had a nice long 20m QSO with Hawaiian station Arch **AH6U** who was interested in our native land and had heard about the Wild Atlantic Way due to the great activations in 2017. He uses the very popular hex beam and puts a little “coal on the fire”.

Conditions excellent from first light on HF working Bernhard **H44MS** on 20m SSB barefoot.

Had a lovely rag chew for 30 mins with Alex **UA2FAI**. No complaints just one exchange after the other on 80m CW running barefoot. He was on a long wire and I was on the Inv V

June 28th was another great day on 6m working stations from the Europe, Middle East, Africa, Cayman Islands and Puerto Rico. I spoke to a few Colombian scouts during their jamboree using the callsign **5K4CSA**.

Early July brought some decent conditions again on the faithful 20m band logging **PJ2FIFA**, **HI0RCE**, **XQ6CFX**, **HK7AAG**, **EI0DXG**, **YW18FIFA** and **ZP6CW**.

July 6th was another decent day on 6m. Lots of **EI** stations on the screen with openings to EU, Middle East, USA,



Caribbean and South America. It was amazing to see how much better the South of EI does on 6m. Spotlight propagation also very noticeable even between Dublin and Louth.

On the hunt for **V6J** but a squeak heard over a few days. RBN indicated that he wasn't making it to Western EU but lamping into Southern EU. Those boys don't know how lucky they have it with the Ionosphere burning the heads off them !! and working the planet with relative ease.

July was a busy month for the world cup special event stations which were like a rash all over the bands. There was also a 50 MHz DXpedition to Turks & Caicos Islands (U.K). The callsign was **VQ5Z** from K4QPL's fantastic **VP5M** contest QTH. Many EI's got into their log for an ATNO. They put a very decent signal across the Atlantic and worked Greece for their furthest entity. We haven't been hearing much lately from Pakistan so was happy to have a quick QSO with **AP2BOR** in Lahore. His LOTW confirmation came within an hour of working him. I noted that the Antarctica wasn't as active over the last few months as the start of the year but out of nowhere came **RI1ANL** on 40+30m FT8.

Looking to the North Svalbard is quite common now on the radio logging **JW/ES4BG** on 20m SSB and within a few minutes **5Z4/AK0SK**

Kosovo was active again on all bands including 6m with callsign **Z68M**. This relatively new entity is only down the road for us and relatively easy to work but rare in other quarters of the planet.

I note that Norman **VK7AC** from Tasmania has now adapted to some FT8 transmissions. He is very active on 40m and very workable from EI with modest equipment. To give folks a chance of working Tasmania OC-006 for the first time he no longer accepts duplicate QSOs, i.e. same band/mode.

I worked **9L1YXJ** in Sierra Leone for ATNO on that 40m band with LOTW confirmation almost immediately. Fernando de Noronha is getting quite common now with **PY0F/PY7RP** making a good impression on European receivers.

Some other 6m DX in July consisted of **TF3ML**, **HK4SAN**, **YV5LI** + **FG8OJ**

The 30m band can be a gem producing the likes of the Vatican City **HV0A**, **C31CT**, **HS0ZEE**, **RI1ANL**, **HK7AAG**, **3W3B** + **5X2B**

No shortage of Japan particularly on 20m on any mode you like. A beam is certainly not required and barefoot will make the trip. Special event station **8J2OGAKI** had an impressive 20m CW signal lining the pockets of many EI and EU stations.

There seems to be a lot less Chinese stations on air compared to Japan however early morning is a good time to lookout for both entities. **BH1RGL** always puts a strong signal into Western EU and has a great set of ears.

The hunt for Micronesian station **V6J** ended when our world-class DXpeditioner Declan **EI6FR** (CW freight train as I have heard him described) called me with a heads up that they were pounding the brass on 20 CW around 20:40z. I fired up the exciter and got them barefoot before the linear

had a chance to warmup. *Thank you, Declan.*

PU0FDN on the Island of Fernando de Noronha appears to be an FT8 only man as I logged him for a new country on 80m.

The Island of Mauritius was well represented lately on HF by Karel from The Czech Republic using the callsign **3B8/OK2ZL**. Six EI ops made it into his log on various bands and modes with Declan **EI6FR** working them on 7 slots.

In 2017, Mauritius was named one of only four countries in the world which had no involvement in ongoing international or domestic conflict and no tensions with neighbouring countries.

Early August and at the time of writing Dave **EI9FBB** and Declan **EI9HQ** were flying the **EI DX** flag off the strawberry fields of Wexford on the Little Saltee Island EU-103. Using the callsign **EJ0DXG** they managed in excess of 2000 QSOs on all modes including 6m FT8. This is an incredible feat for just two ops giving up their long weekend hauling equipment by hand around the Island. This two-man effort was incredible so hats off to the lads and thank you again for going to the effort of activating another IOTA.

The Saltees are among the ancient islands of Europe, based on Pre-Cambrian bedrock i.e. between 600 and 2000 million years old. Primitive Stone Age man first settled there before history was recorded and carved out an existence. As long ago as 3,500 to 2,000 B.C. there were people on the islands. There is a recently-identified promontory fort, the remains of an ancient grave, an Ogham stone (now in a local museum) and traces of what appear to be ring forts.

In 1798 an island cave became a brief hiding place for two leaders of the Rebellion. John Henry Colclough and Bagenal Harvey. They took refuge in a cave on the Saltee Islands from whence they planned to escape to republican France. They were betrayed, arrested and brought to Wexford town. There they were hanged on the bridge on 28 June 1798. Folklore has it that soldiers saw soapy water coming from a cave where both men were washing which led to their capture.

During July I had the pleasure of operating portable from the beautiful Sky Road in Clifden Co. Galway. My go box consists of the Yaesu FT-857d (barefoot) and a 4 band (10/15/20/40) trapped wire vertical with raised radials on a 10m Sota pole. I always had my doubts about trapped verticals but when located at a cliff edge overlooking the Atlantic with a saltwater amplifier I soon changed my mind. I was up and running in no more than 15 mins and the VSWR plot was very respectable. Just dipped into HF every now and again and worked over 200 CW contacts from USA/SA/EU with my furthest contact being JA1HDT.

I stalked **EJ0DXG** who were on Inishmore Island and worked them from 80m – 15m. My LDG tuner fooled the radio by getting into resonance on 80m and 30m for a quick hello.

Keep a good ear out for Ducie Island callsign **VP6D** from Oct 20th – Nov 3rd as this entity doesn't come around too often. Well that's is for HF/6m happenings for now. I hope you enjoyed the trip around the bands. It's all about getting stuck in and getting the most from the hobby.

Until the next time, *best 73 es gd DX*

September		DXpedition Calendar				
2018 Sep01	2018 Sep10	Kyrgyzstan	EX0PL	SP9KAT	DXW.Net 20180516	By SP9ONC SP9OUV SP9ETE SQ9IWS SP9AMF SQ9OUK SP9NLT SQ9MCI P9SCZ SP9IVD SP9MZH SP9DEM
2018 Sep12	2018 Oct01	East Kiribati	T32AH	DL2AH	DL2AH 20180107	By DL2AH fm Christmas I (IOTA OC-024); 80-10m; SSB FT8 RTTY; 100w; Windom; holiday style operation
2018 Sep14	2018 Sep23	Maldives	8Q7EC	OE3DEC	DXNews 20180718	By OE3DEC fm Biyadhoo I (IOTA AS-013); focus on 20m; SSB; holiday style operation; QSL OK via OE Buro or direct or Club Log
2018 Sep15	2018 Sep27	Vietnam	3W9JK	SP5APW	DXW.Net 20180730	By SP5APW fm Cham I (Sep 15-22, 3W9JK/p, IOTA AS-162) and fm Hoi An; 20-6m; SSB; 1kw; Hex beam
2018 Sep16	2018 Sep28	Kingdom of eSwatini	3DA0DO	LotW	K5GS 20180502	By HA5AO; 80-10m; CW RTTY FT8, some SSB; vertical; spare time opera- tion; QSL also OK via online OQRS system and HA5AO direct (see Web); formerly Swaziland
2018 Sep19	2018 Sep30	Maldives	8Q7IP	HA3JB	DXNews 20180716	By HA3JB fm Huhumale I (IOTA AS-013); 80-10m; CW SSB RTTY FT8
2018 Sep21	2018 Oct06	Mayotte	TO6OK	LotW	DXNews 20180711	By OK1BOA OK1FCJ OK1GK OK2ZA OK2ZC OK2ZI OK6DJ fm IOTA AF-027; 160-10m; CW SSB RTTY FT8; QSL also OK via OK6DJ and Club Log
2018 Sep26	2018 Oct10	Rwanda	9X0T	LotW	IK7JWY 20180515	By I1HJT I2YSB IK2CIO IK2CKR IK2DIA IK2HKT IK2RZP JA3USA; 160-10m; CW SSB, RTTY and FT8 (9X0Y) on 20m only
2018 Sep28	2018 Oct14	Samoa	5W0GC	LZ1GC	DXNews 20180416	By LZ1GC in Apia (OC- 097); 160-6m, focus on 160 80m;
CQ WW DX Contest, RTTY (Sep 29-30, 2018) Check here for peri contest activity too.						
2018 Sep29	2018 Oct06	Christmas I	VK9XT	LotW	DXNews 20180528	By A65DC A65DR SM0CXU VE7HDW fm IOTA OC-002; 160-10m; CW SSB + digital (perhaps FT8
2018 Sep30	2018 Oct12	Nauru	C21GJ	W7GJ	425DXN 20180602	By W7GJ fm IOTA OC- 031; 6m; mainly EME but some CW SSB, FT8 (50.313 MHz)

October		DXpedition Calendar				
2018 Oct02	2018 Oct29	American Samoa	KH8	DL2AH	DL2AH 20180107	By DL2AH as WH8/ DL2AH fm Ofu I (IOTA OC-077); 80-10m; SSB FT8 RTTY
2018 Oct06	2018 Oct16	Niue	E6Y	ZL3PAH	ZL4TT 20180413	By ZL3PAH ZL3GA ZL3AB ZL4TT fm IOTA OC-040 (AH50bx); HF, incl 60m; Oceania DX contest SSB and CW
2018 Oct09	2018 Oct14	Norfolk I	VK9		DXW.Net 20180713	By JO7GVC as VK9/ JO7GVC and JK7LXU as VK9/JK7LXU; 40- 10m; CW PSK FT8; holiday style operation
2018 Oct15	2018 Oct24	Samoa	5W0GC	Club Log	TDDX 20180708	By LZ1GC fm Apia, Upolu I (IOTA OC-097, AH46cc); 160-10m. focus on 160 80m; CW SSB RTTY
2018 Oct15	2018 Nov04	Vanuatu	YJ0GC	LZ1GC	DXNews 20180416	By LZ1GC OM5ZW OK2WM fm Efate I (OC -035); 160-6m, focus on 160 80m; CW SSB RTTY
2018 Oct15	2018 Oct30	Christmas I	VK9XG	LotW	G3TXF 20180414	By G3SVL G3TXF G3WGN G3WPH G2NF; 160-10m; CW SSB FT8 (in DX- pedition mode); 4 stations
2018 Oct19	2018 Oct29	Haiti	4V7R	EB7DX	DXW.Net 20180304	By EA7FTR EA1DVY EA1ACP HH2MK HH2JR EB7DX; 160- 6m; CW SSB RTTY FT8
2018 Oct20	2018 Nov03	Ducie I	VP6D	LotW	K5GS 20171201	By K3EL HA5AO W2LK DJ9RR WA6O ZL3CW N6HC W1SRD N6WM HA0NAR PY2PT N6XG K5GS UT6UD NG2H fm IOTA OC-182; 160-10m; CW SSB + digital (incl FT8)
2018 Oct22	2018 Oct30	Burkina Faso	XT2SZZ	S59ZZ	S59ZZ 20180702	By S54W S57L S58Y S59ZZ S50A; HF + 6m; QRV for CQWW DX SSB
2018 Oct26	2018 Nov06	Zimbabwe	Z23MD	LotW	MDXC 20180515	By IZ8CCW I2VGW IZ2GNQ F5EOT ON4LO YO8WW YO5OED ON7RB; HF; CW SSB RTTY

November		DXpedition Calendar				
2018 Nov03	2018 Nov06	Christmas I	VK9XQ	DF8AN	DXW.Net 20180327	By DF8AN; 160-6m; CW + digital (incl FT8); QSL OK via DARC Buro or direct + eQSL (late)
2018 Nov06	2018 Nov10	Cocos Keeling	VK9CH	DF8AN	DXW.Net 20180327	By DF8AN; 160-6m; CW + digital (incl FT8); QSL OK via DARC Buro or direct + eQSL (late)
2018 Nov07	2018 Nov14	St Kitts & Nevis	V47FWX	M0URX	DXW.Net 20180718	By G0FWX fm St Kitts; holiday style operation
2018 Nov10	2018 Nov17	Christmas I	VK9XQ	DF8AN	DXW.Net 20180327	By DF8AN; 160-6m; CW + digital (incl FT8); QSL OK via DARC Buro or direct + eQSL (late)
2018 Nov17	2018 Dec08	Sint Maarten	PJ7AA	LotW	TDDX 20170818	By AA9A; 80-10m, incl 60; CW SSB + digital; Buddipole; QSL also OK via AA9A
CQ WW DX Contest, CW (Nov 24-25, 2018) Check here for pericontest activity too.						
2018 Nov26	2018 Dec06	Nicaragua	YN		DXNews 20180415	By RM0F as H7/RM0F, R4WAA RZ3FW RC5A likewise, also YN4RRC fm Big Corn I (IOTA NA-013); 160-10m; CW SSB
2018 Nov28	2018 Dec07	St Martin	FS		TDDX 20180420	By K9NU W9ILY W9MK FS4WBS K9EL as TBD; 160 80m focus; will try to include FT8 in fox/hound mode; high power



Studying for the HAREC

Joe Ryan EI7GY

joe.ei7gy@gmail.com

Amateur Radio is a somewhat unusual hobby – in that to participate fully it is necessary to hold a licence, which can only be obtained by passing an exam. Anyone with an amateur station transmitting licence understands the need for the hurdle of an exam before earning the right to set up a station that can transmit on agreed frequencies across a radio spectrum that we share with countless other services ranging from broadcast radio and TV to mobile phones to medical devices.

Through an arrangement with the Commission for Communications Regulation (ComReg), IRTS is responsible for setting, organising and correcting the Harmonised Amateur Radio Examination Certificate (HAREC) exam. We publish a Syllabus for the exam which complies with the conditions of CEPT Recommendation T/R 61-02 and has been approved by ComReg. The Syllabus, complete with Notes for Candidates and Annexes, is incorporated in the document “**Studying for the Harmonised Amateur Radio Examination Certificate**” which is available on the Downloads page of the IRTS web site – see links below. This document also includes a Sample Paper – which provides useful guide to how the questions are presented in the licence exam – along with reports published by the Examination Board containing observations and advice that should be of assistance to anyone studying for the exam.

The document described above is an excellent starting point for those taking the first steps in amateur radio. To support exam candidates, we also provide a Course Guide. This guide follows the Syllabus topics and includes more than 350 web pages; it can be browsed online, or downloaded as a ZIP file for offline browsing. The browser version of the Course

Guide is suitable for all devices from desktops to mobile phones. A PDF version is also available for those who prefer to work with paper.

By far the best way to learn about amateur radio is by being a member of a radio club. All clubs welcome new members, including those who have little or no previous knowledge of radio communication. Club membership opens up the possibility of participating in club events that can provide valuable experience at setting up and operating radio equipment alongside existing licensed radio amateurs. Some clubs operate formal classes – these are typically advertised in the society’s weekly radio news bulletins – but even where formal classes are not available, experienced club members are usually quite happy to mentor new members and help them work towards passing the licence exam.

In summary, anyone studying for the HAREC should make use of the extensive support and study material available on the society’s web site. In addition, if possible, join and participate in the activities of a radio club!

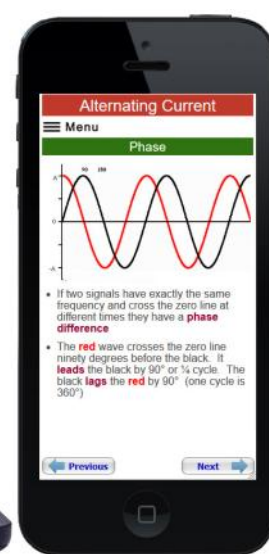
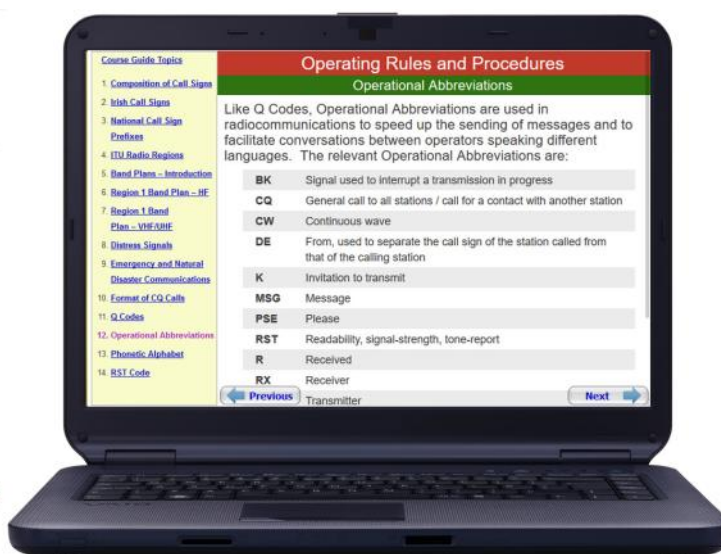
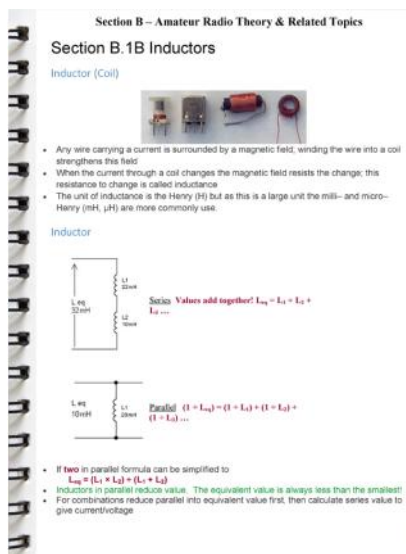
Online Course Guide: www.irts.ie/course

Weekly News Bulletin: www.irts.ie/news

Radio Clubs: www.irts.ie/clubs

Downloads: www.irts.ie/downloads

- Studying for the Harmonised Amateur Radio Examination Certificate
- Course Guide – Browser Version
- Course Guide – Printable Version
- Examination Application Form



The Course Guide is now available in a variety of formats

Copy deadline for **Echo Ireland Winter 2018** is
19th November



Contest News

Joe Ryan EI7GY

contestmanager@irts.ie

IRTS Contest Results (award winners are on page 33)

CW Field Day (2nd & 3rd June)

I don't have much to report about this event; there was just one entry – me – so I won easily! I operated in the Restricted / 6-hour section on Sunday morning, from a site in Co. Wicklow. Band conditions were good, with occasional openings on 10 and 15 metres, probably E-layer.

Support for field days has waned in recent years, which is a pity as they are ideal club events, offering a mix of station set-up and operating experience for new and existing members. Also, field day contests can provide a great demonstration of the skills needed to deploy emergency communications in response to a disaster, as the Rules require the station including antennas cannot be put together more than 24 hours before the contest, and only portable power supplies are permitted.

VHF/UHF Field Day (7th & 8th July)

VHF/UHF Field Day is run in conjunction with a similar field day contest in the UK and with other VHF and UHF contests in Europe, so there are usually plenty of good DX opportunities.

EI9E/P (Network Southern Area Radio Experimenters Club) was in the Open Section and operated on all 5 bands (50, 70, 144, 432 and 1296 MHz). From their Wexford QTH they had almost 800 QSOs, working 21 DXCC entities.

We received just one log for each of the five single-band Restricted Sections. John **EI7FAB/P** operated from Castlebar on **1296 MHz**. He worked 7 stations, earning the 1,000 point bonus for 5+ QSOs.

Tony **EI7GUB/P** on **432 MHz** and Tom **EI7HT/P** on **144 MHz** operated from Howth Summit, with assistance from other South Dublin Radio Club members. Both were pleasantly surprised with the number of QSOs achieved over the space of a few hours: best DX for both Tony and Tom was their respective QSOs with a portable station in Kent (536 km), a significant achievement for these bands from the modest height at Howth.

On **70 MHz**, **EI7MRE/P**, Mayo Radio Experimenters Network were on Slieve Carn, Co. Mayo. From there, most of their QSOs were with UK stations, however they worked a station in northern Spain towards the end of the contest, a distance of almost 1200 km.

I decided to try **50 MHz** – my first ever contest entry on this band – and operated from 400 metres above sea level in Co. Wicklow. I don't possess a beam for 50 MHz, so I made an Extended Double Zepp for the band (two five-eighths wavelength radiators connected to a matching stub of 600Ω ladder line, see photo on next page). I set this up as an inverted-V, pointing south-east for most of the time,

switching to due east and north-east on occasions by simply moving the tie-down points.. My rig is a battery-powered IC-703 (10W output), and with this I managed 20 QSOs in all, including two QSOs with stations in Slovenia. A very pleasant introduction to 50 MHz contesting for me!

Rule Change

Our General Contest Rules provide that “A contest station may submit an entry for only one section of a contest” (Rule 3.7). This exists to deter competitors in from entering multiple sections with the same log; without Rule 3.7 it would be possible to submit an entry for several sections in some contests (e.g. low power, high power, 6 hour, 24 hour). An unintended consequence of Rule 3.7 is that it prevents stations from entering more than one band in the Restricted Sections of VHF/UHF Field Day. We have therefore revised the VHF/UHF Field Day Rules for the restricted (single-band) sections by providing that a station may enter the contest on up to three of the five bands, with a note to the effect that each band will be scored separately.

Machine Generated Modes (MGM)

MGM – in the form of RTTY and PSK modes – have been used in HF data contests for many years. While HF contests tend to be *mode specific*, VHF/UHF contests are often *all mode*. In recent years, *all mode* for many VHF contests and some UHF contests has been defined to include MGM. In this context, MGM would include, for example, FT8, FSK441, JT65, RTTY and PSK; it would exclude CW, even where it is machine generated, and would also exclude Digital Voice. (While *all mode* is common in many overseas VHF/UHF contests, the modes permitted in the IRTS contests are listed in the Rules.)

Most VHF/UHF contests are *range based* (one point per kilometre) and, since some of the newer machine generated modes offer the opportunity for contest QSOs at much greater ranges than CW or SSB, they might seem attractive; the downside is that MGM QSOs typically take longer to complete. Although the 50/70 MHz IARU Region 1 contest has included MGM since 2015, to date there has been very little usage of these modes in this event. The slow take-up of MGM may be partly due to the fact that the structured messaging of the newer MGMs don't suit the requirements of a typical VHF/UHF contest exchange. That may be about to change.

Joe Taylor K1JT, of *WSJT-X* fame, recently indicated that version 2.0 of the *WSJT-X* software will include enhanced versions of the MSK144 and FT8 protocols that, among other things, are expected to facilitate European VHF contest operation with the exchange of six-digit grids, QSO serial numbers, and portable (/P) call signs. The new software is expected to be available in early 2019.

There are mixed views on the impact that FT8 is having on the nature of our hobby and, no doubt, if and when FT8

becomes usable for standard VHF contest exchanges, the views on whether this development is good or bad for contesting will be equally mixed. The ability to communicate when the received signal level is below the normal noise floor, added to semi-automated message sequencing, may make it seem very attractive as a contest mode. I'm not personally enthusiastic about the use of FT8 in contests, as I prefer to have some element of conversation in a QSO, even a contest QSO. There are other downsides to mixing FT8 with traditional modes like CW and SSB. The fact that FT8 is so technically superior to the traditional modes in terms of communicating standard messages over difficult paths could be seen to give FT8 users an unfair advantage. Equally, the semi-automatic QSO-making possibilities with FT8 might allow a single operator to activate more than one band at the same time; would that be fair?

I suggest that MGM certainly does not suit our VHF and UHF *Counties Contests*: these are standalone local contests, with QSOs largely confined to the island of Ireland and with a strong "QSO Party" feel. Counties Contests have always attracted many operators who do not otherwise take part in contests, but are happy to join the party and represent their county. We should avoid de-personalising these events with MGM.

VHF/UHF Field Day is a different type of contest, it is a range based international contest, run at the same time as various VHF and UHF contests elsewhere in Europe, with MGM already permitted in some of these contests. The question of including MGM in VHF/UHF Field Day may therefore arise. Mixing MGM with other modes is not a development that I would personally welcome, but I would be interested in hearing the views of others on this.

IARU HF Championship

This is one of the major international contests, attracting almost 5,000 entries, and is held annually on the second full weekend of July. It's an IARU event, managed for the IARU by ARRL. One of the features of this contest is that IARU member societies may operate a "HQ Station" for the event, and these HQ stations – along with ITU Zones – count as multipliers. The IRTS HQ Station callsign is **EIØHQ** and this station has participated in the Championship in recent years. In the Winter 2017 edition of Echo Ireland I invited IRTS affiliated contest or DX groups to apply to operate the IRTS HQ station for the 2018 contest. Avondhu Radio Club took up this invitation and four members of the club – Denis EI4KH, Michael EI5HZB, Gerard EI5KF and John EI7HMB – operated the EIØHQ station for the 2018 contest, achieving almost 2,700 QSOs in the 24 hours of the contest.

The World Radio Team Championship (WRTC), held every four years, takes place in conjunction with the IARU HF Championship. This year's championship event was hosted by Germany, and involved 63 teams of top contestants from around the world operating field day style in the IARU Contest, with the same operational conditions including identical antennas. Unique call signs – beginning with "Y8" (a prefix formerly used in East Germany) – were issued to the teams, and to avoid cheerleading the actual call sign of each team was not disclosed until after the contest. Not

surprisingly, there was great interest in working the Y8 call signs (as a matter of interest, 34 EI stations appear in the WRTC station logs, with three – Mark EI6JK, Peter EI7CC and Barry EI/W5GN – appearing in all of the Y8 logs). The WRTC winners were from Lithuania: Gedas Lucinskas (LY9A) and Mindis Jukna (LY4L) who operated as Y81N.

Continued on next page



600Ω ladder line matching stub by EI7GY

Contest News (contd)

UKEICC Contests

The UKEICC one-hour 80 metres contests resume in September, with SSB on the first Wednesday (5th September) and CW on the last Wednesday (26th September) of the month, starting at 20:00 UTC. Logs should be uploaded within an hour of the end of each contest, and results are published within an hour of the log deadline. These one-hour contests continue through to April 2019.

The UKEICC group also runs an International SSB DX Contest, which starts on Saturday 22nd September, for 24 hours from 12:00 UTC. Multipliers are the 32 EI and GI counties, district codes for Britain and Crown Dependencies, plus overseas DXCC entities.

Forthcoming IRTS Contests

70cm Counties – Sun 9th September 1.00 pm local (1 hour)

2m Counties – Sun 9th September 2.00 pm local (2 hours)

40m Counties – Sun 14th October 12:00 UTC (2 hours)

80m Evening Counties – Tue 13th November 20:00 UTC (1 hour)

Links

Contest rules & calendar: www.irts.ie/contests
 Contest results: www.irts.ie/results
 UKEICC contests www.ukicc.com

Award Winners—IRTS Contests

CW Field Day (2nd / 3rd June 2018)

Restricted / 6 hour section EI7GY/P, Joe Ryan

VHF/UHF Field Day (7th / 8th July 2018)

Open Section EI9E/P,
 Network Southern Area Radio
 Experimenters Club
 (ops: EI2FG EI3JE EI3JZ EI3KD
 EI7FJ EI8CE EI8JA EI8KN EI9HQ
 G4CLA)

Restricted / 50 MHz EI7GY/P, Joe Ryan

Restricted / 70 MHz EI7MRE/P,
 Mayo Radio Experimenters Network
 (ops: EI2GCB EI5IX EI9JA EI9JS)

Restricted / 144 MHz EI7HT/P, Tom McGrath

Restricted / 432 MHz EI7GUB/P, Tony Doyle

Restricted / 1296 MHz EI7FAB/P, John Browne

News from the Clubs and Contest Participation

We welcome contributions from individual members and clubs affiliated to IRTS telling us about their activities. We particularly welcome items accompanied by clear, crisp, photos, together with separate captions identifying everyone. Submission Guidelines are on the back of this edition of Echo Ireland.

EI DXCC Single Band Status as at 26th August 2018

Compiled by Joe Ryan EI7GY

		160	80	40	30	20	17	15	12	10	6	2
10	EI2GLB	160	80	40	30	20	17	15	12	10	6	
10	EI2JD	160	80	40	30	20	17	15	12	10	6	
10	EI3IO	160	80	40	30	20	17	15	12	10	6	
10	EI6FR	160	80	40	30	20	17	15	12	10	6	
10	EI7BA	160	80	40	30	20	17	15	12	10	6	
10	EI9FBB	160	80	40	30	20	17	15	12	10	6	
9	EI6IZ	160	80	40	30	20	17	15	12	10		
8	EI7GY		80	40	30	20	17	15	12	10		
8	EI8IU		80	40	30	20	17	15	12	10		
8	EI9FVB		80	40	30	20	17	15	12	10		
7	EI1DG			40	30	20	17	15	12	10		
7	EI4BZ		80	40	30	20	17	15	10			
6	EI7JZ			40			20	17	15	12	10	
6	EI9HX			40			20	17	15	12	10	
5	EI4CF			40			20	17	15	10		
5	EI4GJB						20	17	15	12	10	
5	EI4HH						20	17	15	12	10	
5	EI6AL						20	17	15	12	10	
5	EI6JK		40				20		15	12	10	
5	EI8GS		80	40			20		15	10		
5	EI9E		80	40			20		15	10		
5	EI9GLB						20	17	15	12	10	
5	EI9JF		40	30			20	17	15			
4	EI3GV						20	17	15	10		
3	EI3CTB						20		15	10		
3	EI4GK						20		15	10		
3	EI4GNB						20		15	10		
3	EI5EV						20		15	10		
3	EI6FM						20		15	10		
3	EI6HB						20		15	10		
3	EI7GL		40							10	6	
3	EI8JX		40				20		15			
3	EI9HQ						20		15	10		
2	EI2II						20			10		
2	EI4DQ										6	2
2	EI5IF						20		15			
2	EI7IG						20		15			
2	EI7JN						20		15			
2	EI8IQ						20		15			
2	EI9CN						20		15			
1	EI3EBB										6	
1	EI3HA						20					
1	EI5FQB						20					
1	EI5GSB						20					
1	EI6GI						20					
1	EI6S		80									
1	EI9CJ									10		
		160	80	40	30	20	17	15	12	10	6	2

IRTS QSL Service

Special Event Call Signs

The outwards and inwards QSL service is available free to IRTS members, whether individuals or clubs, for their own call and for special event stations licensed to them.

The service is also available free to JOTA stations, irrespective of whether an IRTS member is the licence holder.

Operators of special-event stations should supply details to the relevant incoming QSL Manager listed on www.irts.ie and on the inside front cover of *Echo Ireland*

Entries in Bold Type show changes since 2nd June 2018

34 Echo Ireland Autumn 2018

Silent Key

**Nicholas Jackman
EI4GBB**



We regret to inform you of the death of Nicholas (Nicky) Jackman EI4GBB on 25th February 2018, peacefully, at home in Arklow, Co. Wicklow, after a brief illness bravely borne.

We extend our deepest sympathy to his sister Mary, and to his extended family and friends.

May he rest in peace

Silent Key

**Tony Siviter
EI2IZ**



We regret to announce the passing of Tony Siviter EI2IZ, on 31st July at University Hospital, Kerry.

From Ballinskelligs, Co Kerry, Tony was a former member of KARG, but suffered ill-health in recent years. Sincere sympathies to all his family and friends.

May he rest in peace

Silent Key

**Jim Claffey
EI2DDB**



We regret to inform members of the sudden death of Jim Claffey, EI2DDB, Howth Road, Sutton, Co. Dublin. Jim passed away on Tuesday 17th July.

Jim will be remembered by those early morning travellers on the road-runner net and for long QSOs late into the night on 2m.

Sincere sympathies to his family.

May he rest in peace

Silent Key

**Tony Baker
EI6EW**



We regret to announce the passing of Tony Baker EI6EW, Cabinteely, Co.Dublin in St.Vincents Hospital on 1stJune. Tony was a founder member of South Dublin Radio Club and an avid contester with the Dalkey Island Contest Group.

He came to amateur radio in the 80s and quickly immersed himself in many aspects of the hobby including a spell on the IRTS Committee. He enjoyed the challenge of morse and notched up many CW contacts worldwide.

He was a Judge for the Irish Kennel Club and his Golden Retriever "Chief" was a champion of breed.

To his dear wife Mary, his children Paul, Susan, Mark, Louise, and fourteen grandchildren we extend our sympathies.

May he rest in peace

Silent Key

**Shane McKeever
EI4IK**



It is with profound sadness that we announce the death of Shane McKeever EI4IK of Rahielty, Rathmoyle, Co. Kilkenny, on the 11th June 2018 following a short illness.

To his wife Ellie, son Henry daughter Hanna, mother Una, brother, sisters, and all his relations and friends we extend our deepest sympathies.

May he rest in peace

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**Harry MacMullan
EI2EB**



Harry MacMullan EI2EB, Bunclody, Co. Wexford passed away on 25th June aged 82.

He had been a radio enthusiast since he was young (his father having witnessed Marconi's early experiments in Ballycastle) and qualified as a radio officer in 1958, serving first with Marconi on a tanker, then with Aer Lingus, before joining RTE in 1965. He always enjoyed listening to the IRTS news and calling in afterwards.

Our sympathies to his wife Kathleen, children Ciara, David & Fiona, grandchildren Kate, Maisy & Henry, and to his extended family and friends.

May he rest in peace

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George Young EI7BZ

George Young passed away on June 6th 2018. While George's licence had lapsed he remarked recently that he owed a great debt to amateur radio and how it had shaped his career.

It was George's wish to donate his body to advance medical research at the UCD School of Medicine

May he rest in peace

Members Ads

For Sale: Yaesu FT-480R 2m Transceiver, 10W FM/SSB/CW €200
Yaesu FC-301 Antenna Tuner, 500W €100
Joe EI7GY 01 285 4250
joe.ei7gy@gmail.com

For Sale: Kenwood TS-870S. Boxed, good condition: €550
Yaesu FT 450D: Boxed, as new €450
MFJ 564 Iambic CW paddle, boxed, as new: €50.00
Kenwood SP-31 External Speaker with

filters, boxed: €100
Dave EI4BZ 087 629 0574
davebeag@gmail.com

Your Society Needs You!

To ensure continued publication of *Echo Ireland* an Editor is urgently required

Contact Jim EI4HH

Echo Ireland - the Journal of IRTS, the Irish Radio Transmitters Society, is published quarterly. The Society also publishes **EiNews** - a monthly newsletter. Private advertisements from paid-up members are published free of charge.

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